



**Girls STEM Institute:**  
**Transforming Lives Through a Holistic Approach**  
*EquiLearn Virtual Roundtable*  
Dr. Crystal Morton, MAP Center Equity Fellow – Indiana



**TRANSCRIPTION**

**Robin J:** Good afternoon everyone. I'm going to go ahead into the room. My name is Robin Jackson, and I'm the...Graduate Assistant/Products Coordinator here at the Midwest Plains Equity Assistance Center. Welcome to today's Virtual Roundtable. I'm actually going to hand it off to our Executive Director of the Center to welcome you all today to our Virtual Roundtable.

**Dr. King Thorius:** Good afternoon everybody. It's so great to have you here in person and virtually. We're really excited to start our hour together. I want to welcome you all to what we call our Virtual Roundtable, or EquiLearn Virtual Roundtable. My name is Kathleen King Thorius. I'm Executive Director of the Midwest and Plains Equity Assistance Center, and on behalf of the Center, I want to thank Dr. Crystal Morton, who is an Equity Fellow with the Center and a dear colleague. Thank you for your leadership and your work related to Girls STEM Institute. I'm really excited to learn from the brilliant and creative participants here today.

**Dr. King Thorius:** A couple of things. Our objectives for today's session...We want to be able to provide an overview of the Girls STEM Institute and give some evaluation of the project's impact from the participants and their families themselves, so it's so important to center the voices and the perspectives of those who are at the center of this project in learning about it. So, please, we want to invite everybody who's joining us, in person or virtually, to consider this a time to share your thoughts, ask questions. That's what this idea of a Virtual Roundtable is, almost like a kind of like a giant dinner table, where we're having a conversation. So with that, we're just real briefly look at an agenda for today. We are going to move into our roundtable discussion, and then we're going to have some time for our participants who are joining us virtually to engage in a few polling questions and ask some other questions. We're going to look at some resources from the Girls STEM Institute, and related

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.



Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

resources around STEM and educational equity, and then we're going to wrap up.

**Dr. King Thorius:** A couple of things that we always do, and this will be on our next slide, a couple of things that we always do when we get together any time we're talking about educational equity is to keep focused on the importance of authentic dialogue, and so we're drawing from commitments of Glen Singleton and Curtis Linton who wrote the book *Courageous Conversations Related to Talking about Race in Schools*, and so we borrow from them to encourage everyone to stay engaged, to speak your truth, to experience discomfort. We know that sometimes when we're talking about educational equity, it's not a comfortable conversation. There are some real inequities that this work in particular is set out to address and upend. And also, expect and accept non-closure. At the end of an hour, we can't just tie everything up in a neat bow. There will be lots more questions and lots more work to do as we move forward on this journey and appreciate everybody for engaging in these commitments.

**Dr. King Thorius:** So with that, I will turn it back to Ms. Jackson, our Products Coordinator with the Center, who is going to talk a little bit more about the logistics for our time together for today.

**Robin J:** Thank you Dr. King Thorius. Again, my name is Robin Jackson. I'm Graduate Assistant, Products Coordinator with the Midwest and Plains Equity Assistance Center. I'd also like to introduce Erin Sanborn, who is also a Doctoral Assistant Center...Doctoral Assistant here at the Center. I'm sorry. Who will be my assistant here today. This is interactive space, so like Dr. King Thorius said, you may be able to unmute your microphone throughout the duration of the Virtual Roundtable and verbally ask questions or give comments, but you also have the opportunity to type any of those questions or comments inside of the chat box, and Erin will be sure to field those and make sure that Dr. Morton and her participants here today are able to answer any of the questions that

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

A PROJECT OF MIDWEST & PLAINS  
**EQUITY**  
ASSISTANCE CENTER

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

you may have. Mostly though, we are excited that you all are here, but one thing that we do ask, and I see a lot of you have already done this, is that if you're not speaking, that you mute your microphone, so that a lot of the background noise in your space won't be able to come into this space. That's about it for me.

**Robin J:** Sorry, I'm having some technical difficulties over here. There we go.

**Dr. King Thorius:** So with that, I'm going to introduce today's facilitators, and then I'll get out of the way. I'm pleased to introduce Dr. Crystal Morton, who is an Associate Professor of Mathematics Education here at the Indiana University School of Education at IUPUI in Indianapolis. Dr. Morton is also President Elect of the Benjamin Banneker Mathematics Association and is an Equity Fellow with the Midwest and Plains Equity Assistant Center. Dr. Morton's passion for providing Black girls and young women transformative learning experiences drives her research, teaching, and service, and I've seen this firsthand, and really want to appreciate Dr. Morton.

**Dr. King Thorius:** Focusing on the mathematics and personal development of Black girls and young women, Dr. Morton founded Girls STEM Institute. Girls STEM Institute aims to transform communities by empowering girls of Color to become leaders, innovators, and educators who use STEM as a tool for personal and social change. Welcome, Dr. Morton.

**Dr. Morton:** Thank you.

**Dr. King Thorius:** And also, Ms. Renee Barlow. Thank you so much for being here as well. Lovely to meet you. And, Ms. Barlow has served as the Assistant Director and Program Manager of Girls STEM Institute for the past 5 years. Ms. Barlow also works in Pike Township, which is one of our local school districts. We call them school corporations here in Indianapolis, for those who are joining from

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

afar. And, Ms. Barlow earned employee of the year. She's a school district employee of the year for 2018-2019, quite a recognition. So, congratulations. Ms. Barlow is a mother of two and enjoys traveling, reading, and spending time with family, so thank you for finding the time to spend with us.

**Dr. Barlow:** Thank you for having me.

**Dr. King Thorius:** Great. All right, so I'm going to turn it to Dr. Morton, thank you.

**Dr. Morton:** Thank you for that wonderful introduction, and I just want to introduce our panelists today. We have Mr. Kelly Abney, and Kellie Abney, my favorite participants in the program for 5 years. So, thank you all for being here. We also have Ms. Mariama Shaheed, Ms. Salimah Carson, and they're completing their first year participating in the program. And, over to my right, we have Ms. Lakechie Turnipseed and Naomi Turnipseed, and they're also completing their first year in the program. So, I wanted to say thank you for taking the time to be here today. And, I also just want to thank all the Girls STEM Institute parents and participants, our community partners, I call them the friends of Girls STEM Institute, so community partners and funders, the wonderful staff. All of this work would not be possible without you all, so thank you so much for being a part of our family.

**Dr. King Thorius:** A quick note as Dr. Morton is introducing folks, we have the camera set up to track as people are speaking, so I do realize that you weren't able to see everybody as Dr. Morton was introducing, so for this first round, when we start to get into the questions for the first time or two, if you would introduce yourself or just say your name before you respond. That way all of our participants can get a sense of who you are as they're hearing your responses. [crosstalk 00:08:33]

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

- Dr. Morton:** OK. So, we had a polling activity. I want to ask the participants if you could answer the two questions, “Had you heard of Girls STEM Institute before today,” and the second question, “During your K-12 schooling years, did you participate in any out-of-school STEM learning programs?” We will revisit the question two later in the conversation, but if you could answer those now, it would be greatly appreciated.
- Dr. King Thorius:** So, for folks who are joining virtually have a poll pop up on their screen, and then they'll click that. You probably already know this, but ... And then, our staff will be looking at the results. We need to see what people's experiences are and we'll check in later. [crosstalk 00:09:17]
- Dr. Morton:** Robin, you can advance when you're ready.
- Robin J:** Waiting on just a couple more answers to come through, then I'll show the results really quickly.
- Dr. Morton:** That will be great.
- Robin J:** I'm going to go ahead and end the polling. Can you all see the results? Are you all able to see the results?
- Dr. King Thorius:** The PowerPoint, Robin. That's all we're able to see. [crosstalk 00:10:21]
- Robin J:** Some folks are saying yes. Some are saying no, so ... Of the folks who are able to respond, 39% said yes, they had heard of Girls STEM Institute. And, 61% said no. And, only 17% had participated in out-of-school STEM learning programs, while 83% said no.
- Dr. Morton:** Thank you. Well, 61% of you will be a yes. Well 100% of you will be a yes.
- Dr. Morton:** So, what is Girls STEM Institute? I'll tell a really short story. The idea of Girls STEM Institute was birthed in 1996, so I didn't call it Girls STEM Institute, but I

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

had an idea that I wanted to provide holistic services to marginalized populations, and a part of that will be a Summer Institute, Summer program. As a high school teacher, that's when I really decided that I wanted to focus on the experiences of Black girls. And so, that moment at University of Chapel Hill walking to lunch, which I just had this moment of "This is what I want to do later in life when I really grow up." And so, Girls' STEM Institute...

**Dr. Morton:**

There are three things you see here. It's Informal STEM learning program that provides holistic learning opportunities. So, we focus on content, but we also focus on other areas of wellness. We will focus on the girls' social, mental, emotional well-being, their financial well-being, their interpersonal well-being. We work with parents and caregivers as well. As I mentioned before, I'm thanking community partners. We have community partners that come in to help us do this work. We like to say that we wrap our arms around the girls and their families. So it's not just you drop in, we work through some activities on the summer, and you go your merry way. We're with them three to four weeks on the summer, and then we have year round follow-up programming. Parents also know that we're available for anything throughout the year, and that's that piece of the holistic approach as well.

**Dr. Morton:**

We also implement a socially transformative STEM curricular approach, and that's built on the work of Dr. Jomo Mutegi. He introduced this framework in 2011, and the framework is built upon five competencies. And, I think there's a link to this article is in the reference section. If not, I can make sure that is included later. But, these 5 C's are content, currency, context, critique, and conduct, and the 5 C's are used to critique Western science, but it's also been applied in mathematic spaces as well. And so, briefly content deals with the subject matter. When you think about the currency, that's how it applies to human kind. Context is thinking about how the content applies to people of African descent. When you get into the area of critique, how do you use that



Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

content to understand systemic racism? And then, conduct is the action piece, so being able to help the girls become advocates for themselves as well as for the community.

**Dr. Morton:**

And lastly, that comes together, so this holistic approach of socially transformative curricular approach helps us to create this transformative space that empowers girls and young women of Color. And, in this space as you can see here, we talk about helping them to live their best life possible. We want to embrace who they are. We want to affirm their multiple identities. We want to build upon their brilliance, and we do that through STEM exploration, but we don't put them at the expense of the content. And also, this is an environment that we try to definitely make comfortable for the girls, and let this be a space where they know that they're loved and cared for.

**Dr. Morton:**

Robin, you can go to the next slide, and you all can stop me at any time, and you can send questions. Type them in, and they'll let me know, and I can answer them.

**Dr. Morton:**

So, I want to go back to the second polling question, and the question was, "Did you have access to STEM programming," and 83% said no. And, research lets us know there are barriers, particularly for girls of Color, to have access to outside programming. And, some of those barriers are just lack of access and knowing about the programmings exist. So, you may have counselors that may not tell young women of Color these opportunities are available. If they find out they're available, often times cost as well as transportation can be a barrier. With Girls STEM Institute, we keep the cost very low, and we do that because we don't want that to be a barrier. We don't have transportation, so I do have to say that that is a barrier for some students. If they are unable to have transportation to come downtown, they're not able to participate. Hopefully, sometime soon we'll be able to provide that transportation.

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Dr. Morton:**

So, why does Girls STEM Institute matter? You have a quote there from one of our participants. She talks about “Being a young Black woman. It’s like the teacher is intimidated by me instead of trying to teach me, and she’s saying I don’t have an attitude.” The research is clear that Black girls have different experiences because of their marginalized gender and racial identities. Many don’t know, but Black girls have the higher confidence and valuing of mathematics in their counterparts, but they are often held to lower expectations, been tracked into lower-level classrooms, where they don’t have access to relevant rigorous curriculum. And, when year, after year, after year, have those experiences that are not meaningful. They do impact how you view the mathematics content. Also how you view yourself as a mathematics learner, so many girls will turn away from the field because of those experiences. Not because they can’t do the work. It’s not a space that’s welcoming to them.

**Dr. Morton:**

You can go to the next slide, Robin.

**Dr. Morton:**

So, benefits of informal STEM learning. Girls STEM Institute stars as a counter space, and in a recent article...it was late last year by Joseph and Austin, they mention that for Black girls, the real gap is a love and caring gap. And so, what we do in Girls STEM Institute, as I said before, is really create a space that they can feel loved and cared for, and benefit from an inclusive environment. You’re in a STEM space, you’re in this environment where you’re accepted as who you are, and you’re also engaging in STEM content, so understand that you can do this work. And, it’s also very important they’re in a space that connects the content to their lived experiences and their social realities, and that’s the goal of Girls STEM Institute as well.

**Dr. Morton:**

I’m going to read this next part because it’s a quote from a piece that will come out soon around Girls STEM Institute, and I won’t do it justice trying to paraphrase it. “We also take this realist approach, and the villages around

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

PROJECT OF 



Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

what elements of love is more than a mere emotional escape from the harsh and isolated realities of the formal classroom, and I also say the world and society in general. It is a nucleus that is shaped around the principles of empowerment, enrichment, and exposure such that a holistic betterment of the individual young ladies within Girls STEM Institute is our ultimate goal.” So, that's what we're about, having that village approach, where we can give them a space that's different from what they may be experiencing in school, but also a space, again, where they're having academic rigor but also being affirming who they are.

**Dr. Morton:**

Community building is another benefit. The girls have multiple opportunities to work together and learn from one another. We're an intergenerational group. We serve girls ages...technically 9 to 18, but we do have some 8 year olds, and so they're able to work and build together. And, all of that comes together helping to build their identity as academics in mathematics and other STEM areas, but also just in general to build their confidence as young Black women.

**Dr. Morton:**

And, I'm going to stop there because it's not about me today. And, I'm going to pose some questions to the panelists, and I'm going to start with the young ladies. I'm going to use our outside voice. Girls, what I want each of you to do, and any of you can start, is to talk about what you enjoy most about Girls STEM Institute. And, remember to say your name before you speak.

**Kellie A:**

My name is Kellie. And what do I enjoy most about Girls STEM camp? I guess, you could say it's hard to pick.

**Dr. Morton:**

You can share a few, a couple, your top three.

**Kellie A:**

I enjoy the people. How they put science and math together, because I honestly don't like math, but when you put it together, when we do projects

## Girls STEM Institute: Transforming Lives Through a Holistic Approach *EquiLearn Virtual Roundtable*

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

together, build an airplane, drop Barbies, and when you do the experiments there, it's really cool. You get to do it with everybody else.

**Salimah C:** Hi, my name is Salimah, and my favorite thing I enjoyed about Girls STEM was meeting new people that I didn't know, and we learned a little about [inaudible 00:19:40], and I learned [inaudible 00:19:40] that I didn't know about.

**Naomi T:** Hi, my name is Naomi, and the things that I'm enjoying most about Girls STEM is about the people. The people there are really nice. It's very inspiring, and it's very fun to learn new things almost every day and doing stuff like building an airplane, which I thought that was really fun to do. We actually got to fly it. I enjoyed that.

**Dr. Morton:** So, last summer one of the things we focused on was aeronautics, and then part of the wellness was empowerment through digital media, so they learned how to do photography. They all had photo shoots that they did of each other, and they also helped to publish a magazine called *Boldly U*, so they took all the photographs, wrote the stories, helped to lay it out, and so they've been featured in the past few publications. Okay, so the girls have shared what they like about Girls STEM Institute. So, now I'm going to go to the parents. What do you value most about Girls STEM Institute?

**Lakechie T:** My name is Lakechie Turnipseed, and the thing that I value the most about Girls STEM is you take a well-rounded view of each girl individually. I see the organization focusing on the girls' strengths, and I think the program does a nice job of helping the girls highlight those strengths.

**Mariama S:** I would just add on to that that one of the thing that I was excited about from the very beginning about Girls STEM Institute was that there was a focus on African-American girls learning through STEM and that the leadership that the girls saw every single day were other Black women. And, I think especially as I

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

work in schools, and I think about STEM education, you often don't see Black women leading that work. So, that example in front of the girls I think is very significant. And then, I would also share that it was like a gift that kept on giving with the Girls STEM Institute. From my child coming in going up, as a rising 6th grader, being with children that were younger and older was something that I was a little bit worried that she would have a hard time getting in where she fit in, but I think you all do a great job of really focusing on the strengths that younger children and older children bring and bridging that nicely together. Every day, she wanted to come back. And, that says everything, because every 5th grader doesn't necessarily get excited about camp, but she loved the STEM camp.

**Kelly A:**

My name is Kelly, and the thing I liked about Girls STEM camp was the fellowship. I wanted her to make friends, positive friends, and that's what she got. Not only that; I liked the way that they taught the kids, the math and science, and current, real life situations. When my daughter took part of some of those hair and skin products, I was shocked, but I was happy as well. I was like wow, she's doing something. She's not playing a video game. I also like the fact that they also help the parents. They told me a lot of things that I could do to help improve my daughter's education at school as well. That's three, so I'm going to leave it at that.

**Dr. Morton:**

Well, thank you all for that. So, I don't know if you want to add something as program manager, or are you-

**Dr. Barlow:**

I just want to say that Girls STEM Institute, we worked year-round really hard to make sure that we connect not only with the students, but with home and with their parents, because we know that's important. Sometimes, there may be a disconnect there that's not a student's fault per se, but if we can come in and bridge that gap and show and enhance that...just let them know as a family, we're here to assist, and maybe it's not as big of a problem as they

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

PROJECT OF 

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

thought it was or as big of an issue, especially on girls that are in high school, who are transitioning into going to college, just that whole process during high school and girls in high school. There's a lot of different things that I could talk about here, but Dr. Morton I just really honed in on “let's encompass the entire family”, and that's part of the reason why we put that piece: why we're an institute and not a summer camp. And relating to them every time that we can, and we say that we try to reach out and meet with them at least once a month, to once every 90 days. So, that's the component that I work on really hard behind the scenes, is to make sure that we keep that connection and not just with Girls STEM.

**Dr. Barlow:** Our girls run track. They dance. They act. They sing. They're in pageants. And, we always let the family know, “Hey let us know, so we can support them in other areas of their life, so that we continue to work on the whole young lady.

**Dr. Morton:** So, in thinking about the whole young lady, I'm going back to the young ladies, and I'm going to ask you if you could talk about how your participation in Girls STEM Institute has impacted you as a young Black lady.

**Kellie A:** I'm Kellie again. Seeing how ... Not completely segregating ... I don't want to say that, but it's like gave me more power, feel more confident than what a school could tell me about myself. They give you more of your Black history and tell you about stuff, like I didn't know there was a slide in the Egyptian pyramids.

**Salimah C:** It impacted how I view Black girls. It showed me that Black girls could do anything they put their mind to. Most people think that boys, only boys, can do this, but girls can do it too if they put their mind to it.

**Dr. Morton:** What's the “this?”

**Naomi T:** [inaudible 00:25:52]

Copyright © 2019 by Great Lakes Equity Center

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

- Dr. Morton:** Can you speak up a little bit?
- Naomi T:** I think Girls STEM impacted me as a young Black girl in how...I can do stuff like...we're worth something, and I'm worth to do work and...they teach me how I can be a good person, how I can embrace our Black history more, and I learned how...it helped me...it impacted me with school, how to do better in school. And, it's helped me to embrace my natural hair more.
- Dr. Morton:** And, parents, I have a similar question. Just want to say if you can talk about how Girls STEM Institute has impacted your daughters academically, socially, and emotionally. That's a lot in a question.
- Lakechie T:** That is a lot in that question, because my introduction to the STEM program was to see the movie with the Black ladies that helped NASA get into space, which is *Hidden Figures*, and I brought Naomi to that, and I was sitting in the movie theater thinking to myself, "I had no idea." I actually had a summer program that I was offered to go to NASA, but I didn't think I was worthy when I was in school, and I was thinking like I didn't think...I didn't see anybody that looked like me, so I was excited that this program...Something just that it's not huge, but to me it was huge. It was huge to me to introduce her to that. So I think that Girls STEM gives the children an opportunity outside of the classroom, as well to explore STEM activities, not just something in the classroom, but to understand that it applies to every part of your life.
- Mariama S:** I would say similarly for me, Salimah being in that program, I think it did a couple things. One, there's something to be said about having camp where you're on a college campus every day when you show up, and you eat lunch on a college campus, and you engage with college students to some degree, but you feel like you belong in that space. I think it does something academically and socially to have that experience. But then, I also think emotionally seeing herself as a learner and as smart, and as a girl that

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

supposed to be digging into building things, making things, questioning things, that a lot of times girls don't see themselves doing. So, the fact that all the girls were engaged in that, it wasn't just that it's something she likes. It's what we're all doing, so that community of kids learning together, and that when it was very positive for her.

**Lakechie T:**

Also too, I'll just share that I know at very beginning, I talked to you Miss Renee, that she struggled with math, and that I asked initially from the very beginning, "So how is this going to help her with math?" And, I will never forget what you said about...when you said to me, "I appreciate you letting me know that she needs more help because during this summer program, we'll make sure that she gets it." And that helped to boost her up even this year in math.

**Kelly A:**

Kellie is now honor roll. I'm seeing honor roll. I'm seeing Kellie communicate with teachers. Kellie is helping other students. There was a switch that got turned on, and I don't know if it was from Kellie being around other girls that was getting it, or maybe it was me calling her teacher all the time. But, at one point I was about to give up on the whole school thing and just transfer. But, when I came to some of the parent in-services, I was told certain things that I could do that I felt I couldn't...I felt like a lot of times, being a Black male I was always deemed a threat when I came to school, and a lot of people shut me out of a lot of things, but when it comes to Kellie, she's in choir, running track. This things has...I've watched Kellie change. She's coming out. She's worrying about what she wears. Now she cares about what she wears. I heard her tell her older sister, "You need to stop getting a perm." I'm a bald-headed guy; I don't care about none of that! But, she was going off. I mean, seriously real change, and I've seen it. I got the student of the month. I had a student of the month paper come in. I thought it was forged at first, but no. She went in there. She [crosstalk 00:30:43]. I know it worked. I know what's going on, and I appreciate that.



Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

- Dr. Morton:** Thank you all. We appreciate you all too. We can't do this without our wonderful parents who are always there. We call them in the rain and literally in the rain helping us to do things, to share more about the program, so we really do appreciate you all. Ms. Renee is going to ask the next question for the girls. [crosstalk 00:31:09]
- Dr. Morton:** Question?
- Erin S:** I just wanted to jump in real quick and remind participants that if you all have additional questions for either the girls or the parents or caregivers, please feel free to jump in at any time, or if you're not as comfortable jumping in, please feel free to put them in the group chat.
- Dr. Barlow:** Okay ladies, please describe how your participation in Girls STEM Institute has impacted or impacts your view of STEM. [crosstalk 00:31:47]
- Kellie A:** Like my dad said, I got A-B Honor Roll, but when...I first started, I said [inaudible 00:32:09] I was like, "I don't have the brain capacity to do this." So, I kept just throwing papers everywhere, not really caring. And then, you know around report card area where everything erases, and you start off with all A's? I was like, "Let's see if I can keep that looking like that." And, yeah. My dad started emailing, and telling my teachers, and at times it would be like, "I did do it," and my teacher would be like, "No you didn't." I'd be like "It's right here."
- Dr. Morton:** Talking about your own work?
- Kellie A:** Yeah, especially homework. Yeah. It helped me...Not speak up or be rude, but say...have confident in knowing what I did. You can't tell me because I did it. I know I did.
- Dr. Morton:** So, do you see math...you feel like you can do now math? Is that what you-

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

- Kellie A:** Yeah, it was like math, yeah. Math, and science.
- Dr. Morton:** That's great. Student of the month.
- Salimah C:** Girls Stem Institute...it impacted my view of STEM because ... because I want to be a veterinarian, and that helped a lot because I also really didn't know that much about STEM before I came to this camp, and so I also...being helped with math. That helped a lot because I...my grades in math weren't really good, so I got better. I started learning from STEM.
- Naomi T:** I didn't really know what STEM was until I came to this camp, and I've had a better view of it because usually I wouldn't do so good in science or math, but now since I've been to this camp, it's really helped me with it. And now I'm more organized and focused with it, and I feel smarter about it, and I feel better about it instead of just staring at the paper and just trying to think really hard. Now, I just have that routine in my head that's always going to be there now with my science and math.
- Erin S:** We have a question from one of the participants. They are wondering now that the girls have developed an interest in STEM, what are they doing at school to encourage their friends to try it? [crosstalk 00:34:51]
- Kellie A:** I have tried many times to get other friends from school that I've known were struggling like I was, and not only telling them, "Hey, there's this group. I got you. It's good. It works." If I'm sitting across the table from her, and she's just staring at the paper, I'm like, "Go get the calculator. You know how to do that." And then, she won't...not she won't, but if I can see them where I was, I try to help.
- Salimah C:** I really don't have anything, but people at my school do encourage me to try and not use calculators. [crosstalk 00:35:43] I'm not very good at math and science, though.

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

PROJECT OF EQUITY  
CENTER

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Naomi T:**

I do tell some of my friends about this because I do have one friend who struggles in math and in science. She's like me. I told her how good the camp was, how it really helps you, and how it gives you a better view of it, and how fun it is, and how there's so many people there that could help you. And, when people like to help support you too. And, she talked to her mom about it, and her mom's actually starting to consider it.

**Dr. Morton:**

And, we know from the research that parents play a role in how girls view STEM, so I want to ask the parents has Girls STEM Institute impacted your view of STEM?

**Lakechia T:**

Oh yes. It's made me super excited in the sense that I think the program helps to give tools where they help the kids to advocate on the...for themselves, to become their own advocate. But I think it also gives the parents resources, so we now have resources in order to tap into things that help encourage our kids. So, when you understand something, it does get you excited, so that's why I said I am super excited about the program, and I'm hoping that we can continue to be apart of the program as well, so yes.

**Mariama S:**

I think I always had appreciation for STEM education, but I think it deepened my commitment when I saw my child who doesn't necessarily love school enjoying the Institute. And because of that, by trade I'm a school principle, but in this experience my child had, it made me bring STEM programming for all my kids at school because I saw how it impacted my child. And so, what I see now happening is kids who don't like school, they do love STEM class. Because, there's something about getting your hands involved, being able to do things with what you're learning, to excite you about learning.

**Kelly A:**

I didn't have a clue what STEM was. It was suggested to me, and all else fail type situation, why not. These ladies can tell you there was a time that I called them looking for a tutor on math. Now, my daughter is helping other people in

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

math. It's serious. I was paying some hefty dough for the math tutor to come to my house, two times a week. I recommend it for anybody. I'm an astronomer myself. They'll tell you. I'll be out in the front yard at night, with a telescope, looking up at the sky. This is what I want. I want my daughter to be doing science, technology, and engineering. I got one that's about to graduate next May. She's about to be an engineer from IUPUI.

**Kelly A:**

This is what I want my daughters to do. I want them to know that they can do it, and I want them to see that it has been done. It's like a roller coaster ride. It looks scary, but when you see at the end of the ride them people got off, try that. That's why I pushed my kids too. I want to push my daughters and them to be best, as good as they can, and you can do anything. You can do anything. I just can't push her enough. I want to push her all the way out the door at 21.

**Dr. Morton:**

So parents, I'm going to stay with you for right now, and if you all could just talk about or describe how you have been involved in Girls STEM Institute. Describe how we have sought out your involvement.

**Lakechie T:**

Yes, every time there is something that happens on a monthly basis, the parents are always included. I knows there's been several seminars, even if you had children with special needs. You've had guest people come in for those type of things. There's always been an opportunity for parents, and I know once we did...we talked about the people part. We did one activity where we had tea together, and when we had tea together it was at this fancy, upscale, African-American restaurant. We all had a warm cup of tea, and we shared in our accomplishments. It was a very bonding experience. I remember coming back from that experience and saying "Wow." Me as a parent, I felt very included. I felt connected with the girls. I didn't know all the girls from the summer, but all of a sudden I felt like these people knew me, and I knew them. So, I think the program does a really nice job of partnering with

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

A PROJECT OF MIDWEST & PLAINS  
**EQUITY**  
ASSISTANCE CENTER

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

parents. Not only partnering, but connecting and make sure that we're connecting with the child, not just the school piece, but the entire child.

**Mariama S:**

I think it starts from the very beginning from when you sign on to be a part of the Institute, bringing all the families together around “this is what the program is”, and then talking about all the ways that you can support kids and families outside of that. And then, the activities that continue between the tea that we had, to the Fever game, and all these other opportunities to do things collectively together. So it's a community of girls that I want my girl to be around, that are positive and that are focused towards the same types of things. [crosstalk 00:41:18]

**Kelly A:**

They help me by introducing me to other parents who are going through the same problem. I realized I wasn't out there by myself. One time, we was having a conversation, and I said a couple things and a support system of women were like, “Hey!” It's like...just the information and the group of people that I was with, and it made me talk up. It made, me right when I was ready to give up, push forward a little more. These ladies actually told me they'll go to my daughter's school with me when I go to her meetings, because sometimes you'll go in those meetings, and it'll be 8 people sitting across from you, and you've got 8 people saying something, and by the time you get ready to say yours, it's time to go.

**Kelly A:**

So, they also do little help things. I didn't know there was agencies I can call and get help from those agencies. I mean a lot of things came out, because I'm going to tell you what's real. What's real is these girls are being let down, in some of these schools I've seen it. Some of us parents are being left out. For example, I asked the same question that a woman did, and she got an answer. They looked at me crazy. I been documenting these things. And for example documenting it...I was not even documented. I was trying to remember this in my head, but I've now started documenting.

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

PROJECT OF GREAT LAKES  
**EQUITY**  
CENTER

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Kelly A:**

And yeah, like I said, they deem some of us males as a threat. One time I went to my daughter's school, they locked the door on me and wouldn't let me in. So, I go back to my car, they let a lady in. Maybe it was a situation that I was there for, but once I came and had some of those meetings, I realized, "Hey there's something you can do about this. This ain't something that you should just be sitting back and letting happen with your daughter." So, of course right now a lot of things have changed. Like I said, she's now doing good in school. Hopefully, we keep that going. And, as far as the STEM camp go...I wish they had college courses. I'm going to need that math too long way up, because she lost me already.

**Erin S:**

We have another question from a participant. In addition to *Hidden Figures*, are there any other movies, or books, or programs that have helped inspire the students about STEM? [crosstalk 00:44:09]

**Kelly A:**

You seen any movies?

**Kellie A:**

Black empowerment, yeah. *Wakanda*. That was my movie. [crosstalk 00:44:28] [inaudible 00:44:28][crosstalk 00:44:28][inaudible 00:44:28]

**Dr. Morton:**

So, there have been lunch and learns. What did you just reference, Renee? [crosstalk 00:44:28] [inaudible 00:44:28]

**Dr. Barlow:**

The documentary from Africa, when we did the lunch and learns with the earth day and STEM.

**Naomi T:**

There's that one movie, *The Hate U Give*.

**Dr. Morton:**

What movie did you say Kellie?

**Kellie A:**

*Wakanda*.

**Kelly A:**

*Black Panther*.

Copyright © 2019 by Great Lakes Equity Center



**Girls STEM Institute:**  
**Transforming Lives Through a Holistic Approach**  
*EquiLearn Virtual Roundtable*  
Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Kellie A:** Oh wait, I said Wakanda?

**Dr. Barlow:** Empowerment thing. [inaudible 00:45:33]

**Dr. Morton:** So, one summer we did *Rolling Thunder*. [crosstalk 00:45:42]

**Erin S:** Dr. Morton, do you mind reviewing how long the program is and when it takes place?

**Dr. Morton:** Yeah, so it's usually four weeks. This summer is going to be three weeks and two days, so it's June 10th through July 2nd. And, we're with the girls from...parents can drop off at 8:30, and pick up by 4. And then after that, as I said, we will meet one Saturday a month for a parent/girl workshop. Sometimes, we have the parents and girls together, and sometimes they're separate. What we do during orientation, we ask parents their areas of expertise, and so what I want to do more of is to build that into our program, so have parents lead the workshops for other parents, based on their areas of expertise.

**Erin S:** Thank you.

**Dr. Morton:** You're welcome. So, I have two final questions. So, I want to ask all of you, parents and girls to answer this. There's been conversations about after school funding being cut, and so I wanted to ask what it would mean to you if Girls STEM Institute no longer existed.

**Lakechie T:** I think there would be a gap. I really do. Because, this program fulfills something that schools can't do all the time, and to me, to get rid of a program like this...the holistic part, the confidence that Naomi has developed over the years, the fact that she really does well in math and masters the concepts, which was something when she started 6th grade to 8th grade, it's just progressively gotten better. So, I would have to say that to me it would be

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

disappointing, and I'm hoping that that won't happen, that we would actually get that funding that we need to get this quality program out there.

**Lakechie T:**

And then, also have more girls participate, because I'm sure you get probably a waiting list, because I remember when I was trying to get in, I must have emailed Dr. Morton maybe four or five times before the application ever came out. "Please, did the application come out? Did I miss it?" Because, it was just that important. Somebody had told me about the program, and they said that program is really amazing, and I wanted her to be a part of it. And we are benefiting from that. So I think if the program goes away, I think there will be a gap.

**Dr. Morton:**

Anyone else? You all can just jump in.

**Kelly A:**

Let me tell you. I go to my daughter's school all the time, and man it is needed. It is needed. What I'm seeing in some of these schools, and what I'm seeing from some of these teachers, some of these teachers just do not care. I'm going to tell you now, I've seen it. It's a pay check. It's a pay check.

**Kelly A:**

Example. One teacher has missed half the school year. Come on y'all. You got to see these young girls. There's girls in school that I see that are more focused on their hair and their clothes than their education, and there's some...I've seen some of the parents come to the school. Some of the parents are lacking, too. And, some of us just don't know. We really don't know our options, and when you go to the teachers, yeah, they're supposed to help you, but they're not going to tell you something that could bring them down or make their life hard. A lot of those teachers aren't going to do that, because what they got to do for your child, they have to do for the rest. I sent emails before in the beginning, and would never get a response. Never get a response. These programs are needed for girls and the parents, because you got parents out there like me, that just didn't have a clue. I felt that if the teacher didn't

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

work with me, then that was just it for me. What can I do? She's in this school's district. What can I do? She had a sick mother. It was just me. So, I think this program...it's good that my daughter got in, but I'm not getting ready to lie. There are a million other daughters that need to be in it, and I tell dudes all the time.

**Kelly A:**

I tell fellas all the time, “Trust me man. Put her in there. Definitely get her mind on something else other than her finger nails and what kind of shoes she's wearing.” That's just some of the areas that I be around and that people I see. I think it'll be horrible if something like this stopped.

**Mariama S:**

I think there's a big gap when it comes to STEM programming period in this city, but specifically a gap for girls in STEM, so I think it sounds good, but it actually is happening in this space. So, if let's say Girls STEM Institute wasn't there, I don't know what else there is to build that space. So, if there was no Girls STEM Institute, what would we be doing in the summer with STEM? There currently is no other option, and the one that does exist has been a great one.

**Lakechie T:**

And then, there's the barrier of cost. If you find more, it's \$300 a week. So, that's one week, and the times, usually you're working during those times. So, it may not be all day, and they may not have before care, after care, so those limitations. And then, I've also been around some programs that they advertise they're STEM, but when you get them in the program, they really haven't done anything that is meaningful or enriching, so this program has been unique in that it has served all those needs all in one, and then it's made it affordable, accessible, and then it's made it fun for the girls, which is the most important thing, and they're learning and don't know they're learning, which is awesome. Right? Isn't that the best way to retain things, right?

**Dr. Morton:**

You all have anything?

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Salimah C:** I would be disappointed if STEM was closed because it wouldn't give other girls an opportunity to learn. But, yes.

**Mariama S:** Did you want to sign up this summer?

**Salimah C:** Yeah.

**Mariama S:** She kept asking me, "When is Girls' STEM sign up? When is Girls' STEM sign up?" So, yeah, she'll be in.

**Kellie A:** It would be just bad. [crosstalk 00:52:18] I know you can't give up, but it's like no. I know what teachers did to me, they're not just doing it to me. They're going to do it to anybody and everybody they feel is a little less than them. And, if there's no little hope, everybody's just going to follow the wrong crowd. Just follow everybody, and wind up everybody...not completely reaching what they could reach, or what they should reach, or their dreams, and they'll just nip it in the bud and sit there.

**Naomi T:** I really do [inaudible 00:53:03] what you said, there are girls in my school who only care about their hair and their clothes. And they should be more focused on their school work. And I love clothes too and all that stuff, but you got to...My mom always says there's A before B, so you got to do your work, and then you can have your free time and stuff. And, I think it would be...this Girls STEM really help those girls who need more help, or need more help focusing in class. I think it would just be unfortunate and terrible if it didn't exist at all, because if it didn't exist, I don't know how being in society would really work as much.

**Kelly A:** It just seems like this is an all-male thing. When it comes to this science and math. My daughter goes in this school right now. She's about to graduate. She is I think the only Black girl that she went through her whole thing with. And, even at the jobs she had went to, they pushed her out. She worked at a

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

couple places. Those gentlemen pushed her out. I hear her stories all the time when she comes home. She's like, "Hey this is real out here. This is rough."

**Kelly A:**

And, we need ... It shouldn't be like that. This world would like to make you believe that this is equal. But, we all sitting here know this is just not equal. It is not equal, and the answer to this is to introduce more of these kids to these programs not only at 14 and 15, but we need to find a way to start putting this in school 3rd, 4th grade. I mean, we need to start saying, "No kid go. Go, go, go." I'm just seeing it. And, for some reason, I've been put in this engineering headlights. And, I see when I go to my daughter's class. It's a bunch of men. There may be a couple White ladies walking in there. But, she's always been the only one.

**Kelly A:**

And, this is crazy. She said to me they looked at her and said, "What are you doing this for?" Not for a job or anything like that; they asked her, "What are they doing this for? You got something to prove?" Where did that come from? Me being a father, I had a good response for them, but it might not have been the proper response she wanted to send back at them, but this is the way they think. They want us to think that this is really open. They want to say it's open for everyone, but it's systematically designed for only certain...a group of people to achieve it. I mean, hey. If y'all stop introducing these women, these young women to this STEM and telling these fathers and mothers...it was a lot of us out there that's just feel like we got our backs against the wall. If y'all stop doing this, who knows? Who knows?

**Kelly A:**

That's a scary thought for me, because I've seen my daughter progress from this, and I appreciate that I could call in the middle of the night like hey my daughter got a math assignment here, and I don't understand it. And, somebody actually got on the phone with my daughter and told her how to do her homework. And, of course I went to sleep. And, when you wake

Copyright © 2019 by Great Lakes Equity Center

The contents of this document were developed under a grant from the U.S. Department of Education (Grant S004D110021). However, the content does not necessarily represent the policy of the Department of Education, and endorsement by the Federal Government should not be assumed.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

up...”Before you hang up, you wake me up and let me tell her thanks.” That has happened. That has happened to me, so I...like I said, I really appreciate the program. I hope that nothing like that ever happens.

**Erin S:** [crosstalk 00:57:27] Sorry, I know we only have a couple more minutes, but we have one last brief question. And, just as a reminder for participants in the chat box you can find your post-session questionnaire, so please before logging off make sure to give us feedback on the event. The last question is could you briefly review some of the components of the program that focus on leadership development or soft skills, et cetera?

**Dr. Morton:** We partner with an organization called Always Making Progress, and they do entrepreneurship and leadership skill development. They work with her twice a week, so they have one and a half hour workshops, and then they work on a project throughout the summer that they then pitch to community business owners at the end. It's a competition for them. We also work with different departments and divisions within IUPUI around leadership development and also career college readiness. What was the second part of your question?

**Erin S:** Leadership development and soft skills.

**Dr. Morton:** Okay, so Miss Renee can speak to this more, as I know during the program...so this past summer, we have...they have opportunities to present and teach each other. We had some multilingual students this summer, so they taught their native language to the students, and they were responsible for coming up with the lesson, for engaging the students as well. They also prepare for a community showcase, where they have to talk about and engage with community members about the work that they completed, so we prepare them through that having different opportunities to speak and practice in front of the group. And, we also have the talent showcase that no one can say no to. So, you have to be prepared to showcase some type of skill or talent, and



## Girls STEM Institute: Transforming Lives Through a Holistic Approach *EquiLearn Virtual Roundtable*

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

we help prepare them for that, but even though it's a fun space, it also, I believe, helps with those soft skills as well. So, that's-

**Erin S:** Okay, we want to thank each of you for participating in today's EquiLearn Virtual Roundtable, *Girls STEM Institute: Transforming Lives through a Holistic Approach*. We want to also provide a special thanks to Dr. Crystal Morton and Ms. Renee Barlow for taking the time to share...the time to share a bit more about themselves, the Institute, and the very important work they're doing with the girls of Color. We'd also like to thank Kelly and Kellie Abney, Mariama Shaheed, and Salimah Carson, and Lakechie and Naomi Turnipseed for taking time out of their schedule to meet with us and share about their experiences within the Girls STEM Institute.

**Erin S:** In addition, we'd like to highlight a couple of resources both lead by Dr. Morton. These resources can be found right now in the chat box. The first resource is one of the *Equity by Design* briefs titled *Supporting Student Access through Authentic Partnerships: Reflecting from Parents and Caregivers*. In this brief, we explore that parents/caregivers are often under used resources as partners in supporting the learning of their children. This tool can help educators determined the ways in which their practices are helping to create and sustain or hinder authentic partnerships with parents and caregivers. This tool will also provide resources to help parents become more effective educational advocates for their children.

**Erin S:** The second resource we would like to share is a podcast titled *Within the Intersection: What does it Mean to be Black and a Young Woman in a Mathematics Classrooms?* This podcast discusses what it means to be a Black girl in today's mathematics classrooms and how the experiences of Black girls in mathematics can help inform how educators can create more equitable mathematics learning opportunities for Black girls.

Dr. Crystal Morton, MAP Center Equity Fellow – Indiana

**Erin S:**

Next, we want to encourage you to visit our website for tools and resources such as Virtual Equity Library, our bi-monthly *Equity Dispatch* publication, our *Equity Spotlight* podcast series, and our Equity Tools. You can access all materials on our website as well as stay abreast of upcoming events via our calendar of events.

**Erin S:**

Finally, please join us for the Fall Equity Leaders Institute. It'll be on September 16th through the 17th in Indianapolis, titled *Moving Beyond Critical Reflection to Critical Action: Policy in School Governance*. This conference brings together educators and stakeholders from local and state education agencies to spend two days increasing participants' capacities to advance and sustain equitable practices and teaching and learning. Organizations are encouraged to send teams. For more details, please email us at glec, G-L-E-C, at IUPUI.edu.

**Robin J:**

Thank you all. Can you hear me? Thank you all for your participation today. Please once again, we provide virtual experiences like this throughout the year, and we'd love to hear from you on how we did, things that we can change, so Erin posted the post-session questionnaire link in the chat box. If you all will take just a few minutes to take this questionnaire for us, so we can continue to improve these type of experiences for you. Thank you all again for being here with us today.

[End of Audio]