Fantastic work! You successfully met all requirements and did a wonderful job integrating and expanding upon previous feedback.

You established a strong foundation for future proposals.

Diversifying the Teaching Profession: Identifying Intrinsic and Extrinsic Motivating Factors to Recruit and Retain Teachers of Color (TOC)

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ABSTRACT

Title: Diversifying the Teaching Profession: Identifying Intrinsic and Extrinsic Motivating Factors to Recruit and Retain Teachers of Color (TOC)

Purpose of the study: With the purpose of diversifying the teaching profession to deliver culturally responsive special education supports, services and interventions to a culturally diverse student population, the authors will qualitatively identify and explore the perspectives, intrinsic and extrinsic motivators of special education teachers of color (TOC), that cause them to enter and remain in PK-12 education in a post-pandemic teacher shortage crisis.

Importance of study: The National Assessment of Educational Progress (NAEP; 2022) shows persistent achievement gaps between students of color and students from low-income families and their peers who are White or from more affluent families. Research shows that TOC close achievement gaps for students of color. Unfortunately, although more teachers of color are being recruited across the nation, the pace of increase is slow and attrition rates are high, leaving growing gaps between the demand for such teachers and the supply.

Pre- and post-pandemic, school districts in the United States are plagued with teacher burnout and teacher shortages (Billingsley, 2004). The COVID-19 pandemic exacerbated the problem (Zamaro, et al., 2021). Fairfax County Public Schools (VA), postponed summer school for students with disabilities because they could not find enough special educators to teach (Natanson & Wan, 2021). Students of color are disproportionately represented in special education and most impacted by the pandemic. Given the underrepresentation of special education TOC and overrepresentation of students of color in special education, it is necessary to identify the intrinsic and extrinsic motivators that attract TOC, to recruit, retain, and diversify.

Setting: The study will be conducted in Virginia (VA). Virginia is in the Mid-Atlantic and Southeastern region of the United States. The population of VA is over 8.5 million with demographic composition: White: 66.32%; Black/African American, 19.05%; Asian, 6.70%; Two or more races, 4.77%; and other races, 3.17%. The poverty rate is White, 7.73%; Black, 16.82%; Hispanic, 13.16%; Multiple, 10.41%; Asian, 7.22%; Other, 16.18%; Native, 11.54%; and Islander, 9.99% (World Population Review, 2022). The unemployment rate in VA, as of August 2022, was 2.6% (U.S Bureau of Labor Statistics).

Population: The study will collect narrative data from in-service special education TOC in Virginia. Special education TOC are defined as Black/African American, Asian, Native American, Native Pacific Islander, Two or more races or other races special education teachers with 5 or more years of teaching experience.

Methods and Evaluation: The researchers will use purposive and snowball sampling techniques to identify and sample participants (TOC). Interviews, focus group discussion, and narrative data techniques will be used to collect qualitative data. Data analysis will employ a thematic analysis.

Anticipated outcomes – A brochure containing special education TOC motivators; Concrete recommendations for special education TOC recruitment and retention, Personnel/Professional Development, input for higher education policy, professional learning communities, internship experiences and coursework.

I. Significance

Overview

In the 2017–18 school year, 79% of public school teachers were White and non-Hispanic (Figure 1). 21% of public-school teachers were TOC representing Latinx, Black/African American, Native Hawaiian/Pacific Islander, and American Indian/Alaska Native (Cox, 2017). The racial composition of public school students continue to diversify. From school year 2009–10 through 2020–21, the number of students ages 3–21 who received special education services under IDEA increased from 6.5 million (13%) of total public school enrollment, to 7.2 million, (15%) of total public school enrollment (National Center for Education Statistics, 2022). Nationally, 3,822,411 (53%) children with disabilities are students of color (NCES, 2022).

Students of color learn best from teachers of color. Research shows that teachers of color help close achievement gaps for students of color. These teachers are well regarded by students of all races, a relevant sentiment considering persistent gaps exist between students of color and students from low-income families and their peers who are White or from more affluent families (Carver, 2018). Unfortunately, although more TOC are being recruited across the nation, the pace of increase is slow and attrition rates are high, leaving growing gaps between the demand for such teachers and the supply.

These are among the findings in a report by the Learning Policy Institute (2018), which examines national data and recent research on the barriers TOC face to both entering and staying in the profession. This report found that while the population of TOC overall is growing, Black and Native American teachers are a declining share of the teacher workforce and the gap between the percentage of Latinx teachers and students is larger than for any other racial or ethnic group. The lack of diversity in the teaching workforce negatively impacts students of color.

Increasing teacher diversity is an important strategy for improving learning for students of color and closing achievement gaps. While White students also benefit by learning from teachers of color, the impact is especially significant for students of color, who have higher test scores, are more likely to graduate high school, and more likely to succeed in college when they have had TOC who serve as role models and support their attachment to school and learning. Students with racially diverse teachers also have fewer unexcused absences and are less likely to be chronically absent.

Limited research exists on the attrition and retention of TOC and ways to recruit and retain the teachers despite barriers. For example, Scott and Alexander (2019) examined the experiences of 18 Black men who taught special education and found participants were motivated to become special education teachers for a variety of reasons, such as to challenge cultural stigmas and having personal connections to someone with a disability. Similarly, and related to the current study, the findings showed strategies for recruiting and retaining Black men in special education required (a) strong systems of support beginning with teacher preparation or training programs and during their careers, (b) offers of competitive salaries, and (c) career advancement opportunities (Scott & Alexander, 2019). Although the study was used to provide strategies for recruiting and retaining Black men in special education, it did not include a focus on women or the reasons the teachers remained in the profession. Additionally, Scott (2018) interviewed 10 Black preservice educators enrolled at predominantly White institutions who

were preparing to become special education teachers. The findings indicated sources of motivation for Black educators to become special education teachers including the mission of the program, financial support, and mentoring from faculty of color.

Prior research on the experiences of Black SETs is paltry. Billingsley and Bettini (2019) noted in a review of the literature regarding attrition and retention of special education teachers that very few studies included examinations of teachers' ethnoracial identities and the reasons they provided for leaving or remaining in the profession. In fact, the authors only identified one study that contained a focus on special education TOC and the reasons they stay, and that study included a sample of Mexican American teachers (López-Estrada & Koyama, 2010). Based on prior researchers, who established the positive impacts of teachers who share the same race as their students on students' academic and social outcomes (Egalite et al., 2015), there is a pressing need to understand how to retain and increase the number of Black SETs, especially considering their underrepresentation within the special education teacher workforce. This grant seeks to expand on the limited research and ask the question: "*What motivates TOC to persist in their careers despite barriers they may face?"*

Teacher and Student with Disabilities (SWD) Demographics

The teacher workforce in the United States is predominately White (74-79%), monolingual, and female. The number of SWD, as identified by IDEA, has continued to grow. The racial composition of SWD is: White,14.9%, Black students, 16.8%, Latinx/Hispanic, 14.1%, Asian. 7.6%, Pacific Islander, 11.6%, American Indian/Alaska Native, 18.6%, and two or more races. 15%. Over the last decade, the amount of SWD increased from 6.4 million, or 13% in 2010-11, to 7.2 million, or 14.5% in 2021. 83% of SWD are children of color. In summary, the racial composition of special education students continues to diversify, while the composition of teachers does not.

Students often do better in school when they have a teacher of the same race. Just over 83.5% of special education high school teachers in public schools are white, higher than the teaching population. Only about half of all students receiving special education services are White, according to 2017-18 data. Students of color need TOC.

Research suggests that students of color who have at least one teacher of color may do better on tests and be less likely to have disciplinary issues (Gershenson et al., 2022). It is also proven that White students show they benefit from diverse teachers with improved problem-solving, critical thinking and creativity.

Project Aim

By learning the personal context within which TOC are prepared, teach, and contribute to the success of students of color, we will draw attention to a much-needed reform of the preparation and support of policies and practices for TOC. Surveying over 200 teachers, from early childhood, elementary, and high school settings, this grant will tease out how TOC make sense of and negotiate their educational experiences, practices, beliefs, experiences, and perceptions of how their professional identities are constructed by themselves and others, and new and improved perceptions and requirements of teaching, maintaining, and supporting TOC in a predominantly White profession.

Rationale

Current State of TOC in the United States

In an extensive review of the literature, Villegas and Irvine (2010) identified three empirically-based arguments supporting the benefits TOC bring to K-12 schools: (1) they serve as role models to all students; (2) since they tend to work in high-minority urban schools, they reduce the acute shortage of educators; and (3) many TOC are particularly well-suited for teaching students of color because they bring a deep understanding of the cultural experiences of these learners. According to the academic literature, TOC tend to have higher expectations of students of color (Oates, 2003; Uhlenberg & Brown, 2002), are more likely to utilize culturally relevant pedagogies (Irizarry & Donaldson, 2012), and serve as cultural brokers with the community (Eddy & Easton-Brooks, 2011). Additionally, TOC are more likely to engage in racial discourse (Thompson, 2004) and challenge racial inequality (Kohli, 2009). While it is not guaranteed that every TOC will be effective with students of color (Achinstein, Ogawa, Sexton, & Freitas, 2010), it has been shown that TOC are instrumental in remedying racial disparities of achievement (Villegas & Irvine, 2010).

Proponents of increasing the diversity of the teacher workforce cite a "democratic imperative," which highlights the failure of schools to serve the educational needs of students of color as evidenced in an achievement and retention gap between White students and students of color (Haycock, 2001). Some assumptions behind this second imperative are that teachers of color may be suited to teaching students of color because of a potential understanding of the cultural experiences of these learners and the possibility of promoting culturally responsive teaching, supporting cultural synchronicity, and building cultural bridges from home to school for learners (Irvine, 1988; Villegas & Irvine, 2009; Villegas & Lucas, 2004).

Recruiting and retaining a diverse teacher workforce that includes TOC is crucial. However, faced with a national teacher shortage, schools across the country are struggling to hire a workforce of qualified educators that reflect the racial diversity of their communities (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). While current conditions in many states have contributed to widespread shortages of teachers of all types, TOC encounter unique barriers to entering the profession and to continuing to teach for the long haul. Fortunately, a variety of programs, policies, and practices hold promise in helping to bolster the pipeline of TOC recruited and retained in teaching.

As revealed in the literature review, there is a need for a deeper, critical exploration of the lived experiences that TOC face throughout the pipeline of their development as teachers. This research study will investigate the complex experiences of TOC in their primary years within the profession. This study will undoubtedly reveal patterns of racialization, but it will simultaneously illuminate the unique strength, resiliency, and resistance as TOC in their work to improve the educational opportunities of students of color and provide valuable qualities that influence retention.

Practical Importance

In a post-pandemic era, attrition rates for teachers are a focus of national conversations concerning teacher shortage issues (Carver-Thomas & Darling-Hammond, 2017; García &

Weiss, 2019). Understanding the reasons for the rates of teacher attrition is especially critical in subject areas such as special education (e.g., Billingsley & Bettini, 2019) and among socially marginalized groups such as ethnoracial teachers (Bristol & Martin-Fernandez, 2019) who experience higher rates of turnover (Carver-Thomas & Darling-Hammond, 2017). In recent years, researchers have studied attrition patterns for ethnoracial special education teachers, especially among Black special education teachers (Scott & Alexander, 2019) to address the disproportionately small number of Black special education teachers compared to the large number of Black children served in special education programs (Billingsley et al., 2019).

Considering the rich body of literature on teacher shortages (Sutcher et al., 2019), much of the research on special education teachers originates from a deficit perspective and places an emphasis on the barriers teachers face that lead to attrition (Conley & You, 2017). The same concentration is not placed on the reasons special education teachers persist in the profession. In a time of crisis where shortages of TOC and turnover rates in special education are alarming, this grant explores the reasons TOC persist despite the difficulties they face. An asset-based approach is employed to expand the discourse around attrition and retention of TOC, especially in understanding their motivation and ways to retain TOC more effectively.

Evaluating this crisis of racial underrepresentation, more attention to the experiences of preservice and novice TOC is needed for better understanding of how to recruit and retain a diverse teaching force. With this grant, we aim to draw attention to critical issues in the preparation, support, and retention of TOC. Our aim is to show the need for more critical research on TOC and to bring the narratives of their experiences to the head of current discussions on teacher education reform. It is important to understand the demographics and statistics around the composition of students of color and TOC. However, it is most important to move dialogue and research forward on the experiences of TOC along the professional retention continuum.

II. Methods and Evaluation

Participant selection

We will implement a purposeful and snowball sampling method to recruit 200 teachers who meet the following criteria: (a) employed as a current special education teacher for at least 5 years, and (b) identified as a TOC. The researchers will reach out to school districts in Virginia to seek permission to recruit participants for the study. Once approved, we will identify participants from a listserv developed by the first author and approved by administrators located in five different school divisions across Virginia. We will also rely on the first recruits to connect us to other colleagues/potential candidates that meet criteria for the study.

Data collection

The researchers will extend an online survey to explore individual and system-level factors that lead to teacher retention and persistence created by Scott (2019), interview protocol and focus groups for data collection.

Survey

From the survey, the research aims to achieve an internal consistency for measuring teacher retention and persistence at alpha =.90 when calculating Cronbach's alpha. The survey will be sent to a listserv of 200 teachers and a 100% response rate is anticipated. Special education teachers will complete the survey. Respondents will represent a diverse pool of special education TOC. In addition to the items measured, the survey will be used to request demographic information and participants' willingness to participate in a follow-up focus group. We anticipate half of the special education teachers who responded to the survey (n = 100, 50.0%) will express interest in participating in the focus group. The quantitative data that will be collected from the online survey and follow-up focus group will be part of the larger study examining persistence and retention among TOC of various races and ethnicities.

Interviews

The researchers will train graduate research assistants on the interview protocols to ensure the reliability of data collection procedure. The researchers and the assistants will do a pilot test using the interview protocols to ensure that the questions are eliciting the expected response and that the interpretation of the questions are the same for all potential participants. Any necessary adjustments will be made following the pilot study.

Once the interview protocol is refined, the researchers and the research assistants will interview the participants concerning their motivation to become special educators and their motivation to continue to stay on the job. The participants will be encouraged to share their story as to how they ended up as special educators, what preparations or experiences they received, who were the key influencers in their lives, and so on. We will use follow-up questions to elicit or fill in any gaps in their stories.

Focus Groups

At the end of the interview, we conduct focus groups. This data collection method was selected because of its ability to be more structured to address the research questions, while also remaining flexible enough to understand the lived experiences of participants and allow these

experiences to guide new directions and understanding of why special education TOC persist in their K-12 careers.

We will hold ten focus group sessions with ten participants each at various times, including weekday evenings and weekends, in order to increase the rate of participation. Additionally, we will hold focus groups via Zoom, a video and web-conferencing platform, to eliminate barriers to in-person attendance. Each participant will engage in only one focus group meeting lasting about an hour and a half. Focus group questions will be based on data from the initial survey and will examine factors surrounding teacher retention and persistence.

Further, focus group questions will be based on previous research regarding teacher retention and attrition (Billingsley, 2004; Guha et al., 2017; Robertson-Kraft & Duckworth, 2015; Scott, 2019; Spurgeon & Thompson, 2018), and the co-researchers' knowledge. Examples of focus group questions may include:

- *How would you describe your role as a special education TOC?*
- *What are some challenges you have faced to become/to perform your duties as a special education TOC?*
- *What environmental supports do you credit for your decision to remain a special education teacher?*
- *Having taught for x-years how would describe your core motivations for remaining?*

During each focus group, the lead researcher will read the informed consent for the study to participants and discuss the interview and audio recording process through Zoom. We will implement a semi-structured interview process to lead our discussion, enabling participants to share rich narratives of their experiences. Each member of the research team will alternate asking interview questions. Probing questions will follow-up any responses needing clarifying information on the specific experiences, supports, and factors described by the participants.

Trustworthiness

To promote credibility of the study, we will implement strategies including member checking and triangulation techniques. Member checking involves sharing the research materials with participants during the data analysis phase to ensure their viewpoints are accurately captured. We will send interview transcripts to participants via e-mail to confirm the accuracy of their viewpoints and avoid misrepresentations. Additionally, all participants will be given the opportunity to authenticate the interview themes prior to writing study results.

Positionality

Investigating the persistence of K-12 special education TOC by professionals that are currently K-12 educators provides us with a unique understanding of the roles and responsibilities of these teachers. We also acknowledged that as current special education teachers it is important to be mindful of our biases. We anticipated raw and authentic discussion between participants and the research team, as some studies show that social constructs including race and professional background can positively influence researchers and participants interviews–resulting in more thick, rich, and authentic data.

Although our race and experiences aid us in understanding the point of view of the participants, we will be challenged to resist preconceived ideas and set those understandings aside to concentrate on the lived experiences of the participants. We also plan to use reflexive

activities throughout the research process in order to provide critical feedback and challenge each other's assumptions and beliefs. We also acknowledge that our commonality with participants could be leveraged as a strength to understand and interpret participants' experiences more authentically.

Data Analysis

The grounded theory analytical procedures we will use in our research involve coding, theoretical questioning, concept development, and exploring conceptual relationships (Saldana, 2016). We will conduct coding via MAXQDA+, a computer assisted qualitative data analysis software. First, we will individually conduct open coding of one of the interview transcripts and coded motivations and barriers to persisting in the teaching profession identified by the participants. Next, we will meet to discuss the codes and identify areas of similarities and differences.

Coding

After initial coding, axial coding will be applied to identify areas of similarities and differences and compare the initial codes that are identified. Further, we will reorganize the codes into "barriers" or "motivation" to prioritize the codes and create "axis" categories.

Following critical steps in grounded theory by Glaser and Strauss (1967), we will also establish agreement or disagreement surrounding the codes through discussion in which we will question developing concepts and reflect on analytical thinking and relationships among the codes.

In our final stage of analysis, we will apply selective coding procedures by interrogating and refining our axial codes to develop core categories and explaining our theory (Saldana, 2016). Direct quotes to support each generated code will be identified. Throughout the data analysis process, we will used techniques such as frequent questioning of the data and emerging themes to enhance researcher sensitivity (Strauss and Corbin, 1994)

Triangulation of investigators will be used to ensure trustworthiness. The co-researchers will conduct initial open coding, develop the codebook, and discuss the relationship between codes and categories to identify emerging themes. The triangulation technique will allow for the consideration of diverse perspectives and critical questioning to generate transparent and trustworthy findings. The sample coding phases are illustrated in Figure 1. Based on the codes we agreed upon for barriers and motivation, we will develop a qualitative codebook to use for coding the remaining focus group transcripts. Following the coding of the remaining transcripts, we will discuss the emerging themes and relationships to develop a preliminary theory to explain why special education TOC remain in or leave the profession.

Focus group data analysis

We will extract the critical events in the stories collected from the TOC to build a clear picture of our participants' teacher motivation. Coupled with the transcript from the interviews, the researchers will try to develop a range of factors or motivators that draw TOC to the teaching profession and keep them on the job.

Reliability

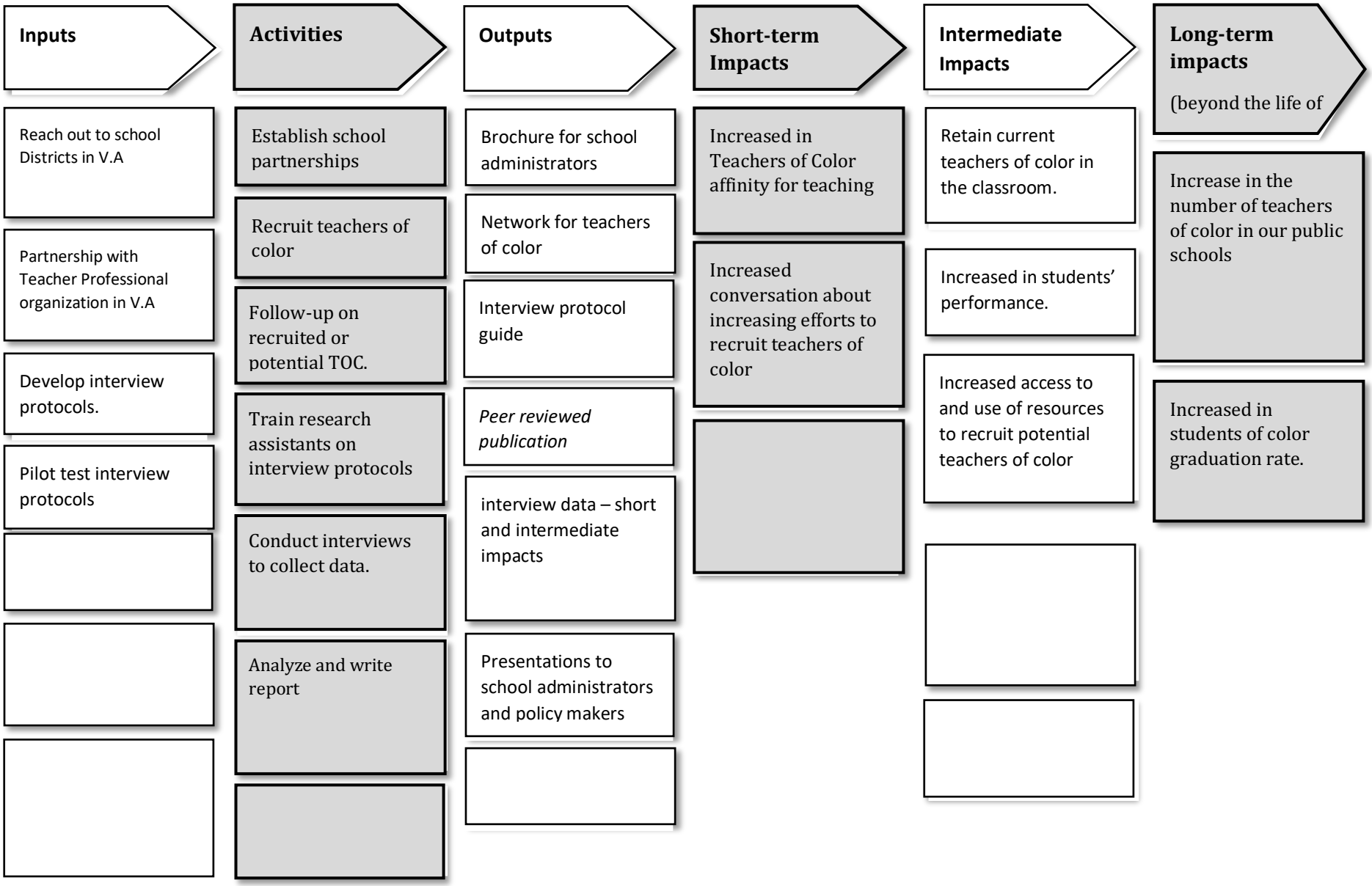
The researchers will train and practice the interview protocols with the research assistance to ensure consistency is achieved. The researchers will assume the role of the

participants and the research assistants will interview them. The researchers and the assistants will then evaluate and discuss how they did on the practice. They will do this until they all understand the expectations, how to ask questions without giving the participants' clues, leading questions, and so on.

The transcribed data will be given to the participants to ascertain that their voices were captured as accurately as possible. We will correct any misconceptions or wrong captures of these data before analysis begins.

During the coding phase, the researchers will develop the coding system and then train the research assistants to code the transcripts. The coders will independently code at least 60% of the transcripts that were previously coded by the assistants, to ensure at least 90% interrater agreement (IRA) exists across the coded themes. A timeline for all the major tasks throughout the life of the project is posted in Appendix A.

III. Logic Model



IV. Personnel

The principal investigators will work on the project as if it is an assigned teaching class. We will dedicate 10 hours a week to this project. The number of hours dedicated to the project will increase as we get to data collection.

Principal Investigators

Kwame Mensa Bonsu. Kwame Mensah Bonsu is a 3rd year doctoral student in the Special Education program in the College of Education and Human Development at *George Mason University.* Mr. Mensah Bonsu earned his Master of Education (in Secondary Education) and Master of Education (in Special Education) at Grand Canyon University and George Mason University, respectively. Mr. Mensah Bonsu's research interests are focused on special education teacher recruitment, retention, and motivation. Mr. Mensah Bonsu currently works as a mathematics teacher in a high school within Fairfax County Public Schools.

Kia R. Felder Williams. Kia R. Felder Williams is a second-year doctoral student in the ASPIRE program in the College of Education and Human Development at George Mason University, Fairfax, VA. ASPIRE is an Office of Special Education Program (OSEP) funded doctoral grant program that focuses on technology in teacher preparation and research for students with high-incidence disabilities. ASPIRE prepares scholars for higher education faculty positions to **A**dvance **S**pecial Education **P**edagogy, **I**nnovation**,** and **R**esearch toward **E**ffective interventions. She has experience as a special educator in the urban school setting of Prince George's County, MD. Kia has instructed elementary students with high-incidence disabilities, primarily autism spectrum disorder, ADHD, and emotional and behavioral disabilities. Her major research interests center around the disproportionality of Black/African Americans in special education and include the perception of dis/ability diagnoses of parents, children, and families and the impact on care, treatment, and intervention. Mrs. Felder Williams views the intersectionality of race, culture, and education through a critical lens and leans towards a dis/ability critical race framework to define, interpret, and explore research questions.

Data Collection:

2 Graduate Students. The graduate students will be expected to work 10 hours a week

Expert Consultant:

Expert consultant in special education and qualitative studies

The expert is expected to meet the researchers twice in a month for at least 2 hours per meeting session

Participants:

200 Teachers of Color; Participants are (a) Special Education teachers with at least 5-years experience; and (b) self-identified as a Teacher of Color.

V. Budget

Year 1		
Expenses[1]	**Cost**	**Rationale**
Personnel[2]		
Graduate students	*$3000*	*Financial support for a minimum of two Mason student researchers to assist in data collection for research activity for 100 hours@$15 USD*
Fringe Benefits		
Principal investigators- Kwame and Kia	*$58,308*	George Mason University's negotiated fringe benefit rates for Fiscal Year 2022 are: Faculty (Admin, Teaching, & Post-Docs) 33.9%
Expert Consultant (secondary investigator)		
Expert in Special education and Qualitative studies	*$5000*	Bi-weekly meeting with the expert to deliberate strategies and review the methods and progress of project.
Supplies		
Pilot testing and training materials	*$2500*	*Interview protocols, recording devices, data collection and analysis from a sample of 10 teachers.*
Human Subjects Payments		
Participants (TOC) incentive	*$1250*	*$25 Amazon gift cards for the 50-special education teachers.*
Travel		
National conferences	*$1200*	*Registration costs for two national conferences and air ticket.*
Facilities and Administrative Costs (indirect costs)		
GMU F&A	*$114,000*	George Mason University has an F&A rate of 57%
Total	**$185258**	

Year 2		
Expenses[1]	**Cost**	**Rationale**
Personnel[2]		
Graduate student wages	*$3600*	*Financial support for a minimum of two Mason student researchers to assist in data collection for research activity for 100 hours (about 4 days) @$18 USD.*
Fringe Benefits		
Principal investigators- Kwame and Kia	*$63,468*	George Mason University's negotiated fringe benefit rates for Fiscal Year 2023 are: Faculty (Admin, Teaching, & Post-Docs) 36.9%
Expert Consultant (secondary investigator)		
Expert in Special education and Qualitative studies	*$7,000*	Bi-weekly meeting with the expert to deliberate strategies and review the methods and progress of project.
Supplies		
Materials	*$1000*	*Coding protocol and Coding software*
Human Subjects Payments		
Participants (teachers)	*$1250*	*$25 Amazon gift cards for at least 50 teachers for follow-up interview*
Travel		
National conferences and travel to Participants	*$1300*	*Registration costs for two national conferences.*
Facilities and Administrative Costs (indirect costs)		
GMU F&A	*$114,000*	George Mason University has an F&A rate of 57%
Total	**$191,618**	

Year 3		
Expenses[1]	**Cost**	**Rationale**
Personnel[2]		
GMU Graduate student wages	*$4000*	*Financial support for a minimum of two Mason student researchers to assist in transcribing and coding of data for 100 hours@$20 USD*
Fringe Benefits		
Principal investigators- Kwame and Kia	*$68,628*	George Mason University's negotiated fringe benefit rates for Fiscal Year 2022 are: Faculty (Admin, Teaching, & Post-Docs) 39.9%
Expert Consultant (secondary investigator)		
Expert in Special education and Qualitative studies	*$9,000*	Bi-weekly meeting with the expert to deliberate strategies and review the methods and progress of project.
Supplies		
Coding materials and printing	*$800*	*Renewal of Coding software and printing gadgets*
Human Subjects Payments		
Participants (teachers follow-up)	*$2500*	*$25 Amazon gift cards for the 50 teachers to do focus group interview, discussions, and follow-ups.*
Travel		
National conferences	*$800*	*Registration costs for two national conferences.*
Facilities and Administrative Costs (indirect costs)		
GMU F&A	*$114000*	George Mason University has an F&A rate of 57%
Total	**$199,728**	

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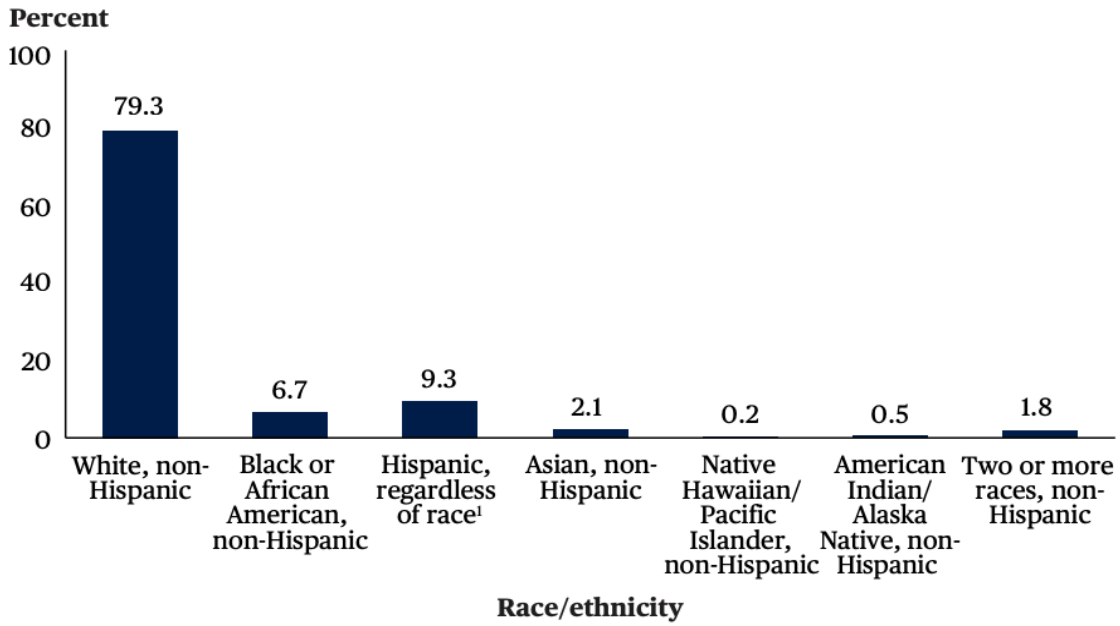

[1] Hispanic includes Latino.
NOTE: Teachers include both full-time and part-time teachers. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Teacher Data File," 2017-18.

Figure 1. Percentage distribution of teachers by race/ethnicity: 2017-18

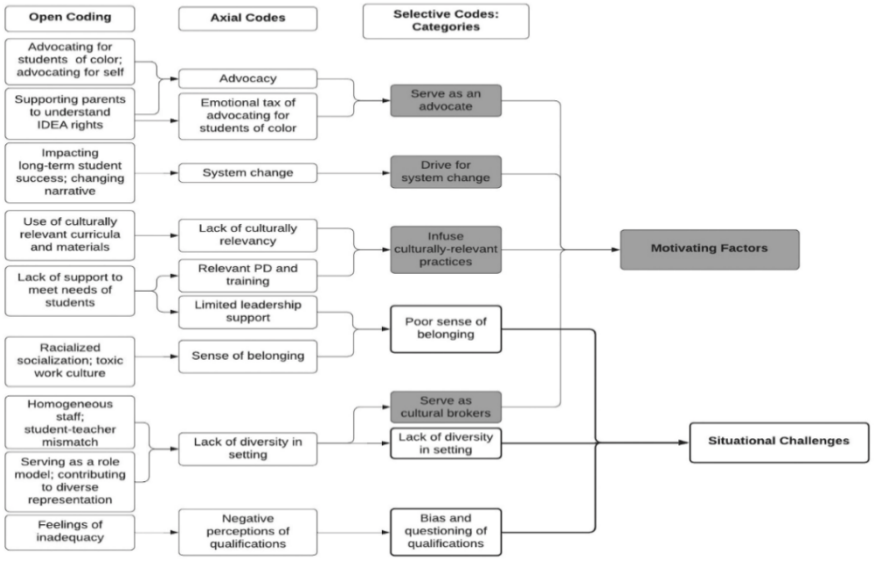

Figure 2. TOCs Persistence in Schools

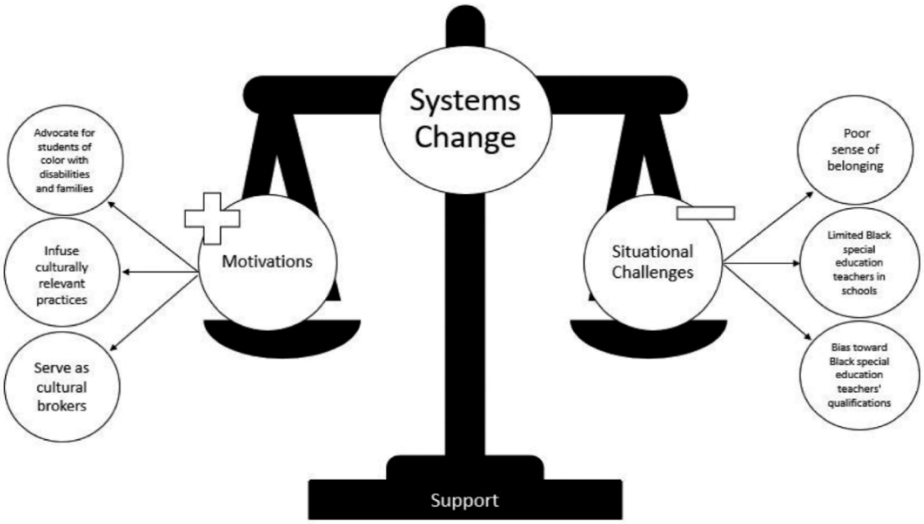

Figure 3. Grounded Theory sample coding phases

Table 1. Children 3 to 21 served under IDEA, Part B, by age group and sec, race/ethnicity, and type of disability: 2020-21

Type of disability	Total[1]	3 to 5 years old (including only 5-year-olds not yet in kindergarten)[2]		5 to 21 years old (including only 5-year-olds in kindergarten)[3]		Total, 3 to 21 years old						
		Male	Female	Male	Female	White	Black	Hispanic	Asian	Pacific Islander	American Indian/ Alaska Native	Two or more races
1	2	3	4	5	6	7	8	9	10	11	12	13
	Number of children served											
All disabilities	**7,182,916**	**344,217**	**150,696**	**4,359,157**	**2,264,409**	**3,360,505**	**1,245,125**	**1,956,318**	**202,197**	**20,847**	**85,519**	**333,519**
Autism	828,338	---	---	633,866	133,555	384,497	126,940	216,880	54,745	2,297	6,107	41,279
Deaf-blindness	1,762	---	---	829	766	928	196	430	96	8	21	84
Developmental delay[4]	487,322	---	---	185,933	77,981	243,211	85,000	104,928	16,772	1,788	9,456	27,368
Emotional disturbance	352,667	---	---	247,316	98,158	175,350	78,789	67,294	3,628	733	4,246	22,527
Hearing impairment	71,554	---	---	34,938	30,476	31,175	9,037	23,154	4,388	352	781	2,946
Intellectual disability	429,277	---	---	239,984	171,290	169,093	109,683	117,634	11,496	1,529	5,058	15,435
Multiple disabilities	127,841	---	---	75,984	47,580	66,780	21,669	26,874	4,951	578	1,897	5,251
Orthopedic impairment	34,519	---	---	17,734	13,247	16,889	4,267	9,854	1,861	122	283	1,414
Other health impairment[5]	1,095,944	---	---	767,322	316,366	583,315	197,784	229,281	16,920	2,529	10,686	56,439
Specific learning disability	2,345,913	---	---	1,347,517	956,032	976,516	433,910	763,335	36,501	7,947	31,993	95,990
Speech or language impairment	1,356,896	---	---	779,348	398,905	685,939	170,117	385,198	48,900	2,800	14,333	62,608
Traumatic brain injury	25,228	---	---	15,307	9,058	13,718	3,972	5,342	725	73	328	1,075
Visual impairment	25,656	---	---	13,079	10,995	13,094	3,759	6,116	1,214	91	332	1,103
	Percentage distribution of children served											
All disabilities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Autism	11.5	---	---	14.5	5.9	11.4	10.2	11.1	27.1	11.0	7.1	12.4
Deaf-blindness	#	---	---	#	#	#	#	#	#	#	#	#
Developmental delay[4]	6.8	---	---	4.3	3.4	7.2	6.8	5.4	8.3	8.6	11.1	8.2
Emotional disturbance	4.9	---	---	5.7	4.3	5.2	6.3	3.4	1.8	3.5	5.0	6.8
Hearing impairment	1.0	---	---	0.8	1.3	0.9	0.7	1.2	2.2	1.7	0.9	0.9
Intellectual disability	6.0	---	---	5.5	7.6	5.0	8.8	6.0	5.7	7.3	5.9	4.6
Multiple disabilities	1.8	---	---	1.7	2.1	2.0	1.7	1.4	2.4	2.8	2.2	1.6
Orthopedic impairment	0.5	---	---	0.4	0.6	0.5	0.3	0.5	0.9	0.6	0.3	0.4
Other health impairment[5]	15.3	---	---	17.6	14.0	17.4	15.9	11.7	8.4	12.1	12.5	16.9
Specific learning disability	32.7	---	---	30.9	42.2	29.1	34.8	39.0	18.1	38.1	37.4	28.8
Speech or language impairment	18.9	---	---	17.9	17.6	20.4	13.7	19.7	24.2	13.4	16.8	18.8
Traumatic brain injury	0.4	---	---	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3
Visual impairment	0.4	---	---	0.3	0.5	0.4	0.3	0.3	0.6	0.4	0.4	0.3
	Number of children served as a percent of total enrollment[6]											
All disabilities	**14.5**	**53.0**	**25.8**	**17.7**	**9.6**	**14.9**	**16.8**	**14.1**	**7.6**	**11.6**	**18.6**	**15.0**
Autism	1.7	---	---	2.6	0.6	1.7	1.7	1.6	2.0	1.3	1.3	1.9
Deaf-blindness	#	---	---	#	#	#	#	#	#	#	#	#
Developmental delay[4]	1.0	---	---	0.8	0.3	1.1	1.1	0.8	0.6	1.0	2.1	1.2
Emotional disturbance	0.7	---	---	1.0	0.4	0.8	1.1	0.5	0.1	0.4	0.9	1.0
Hearing impairment	0.1	---	---	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1
Intellectual disability	0.9	---	---	1.0	0.7	0.7	1.5	0.9	0.4	0.8	1.1	0.7
Multiple disabilities	0.3	---	---	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.4	0.2
Orthopedic impairment	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other health impairment[5]	2.2	---	---	3.1	1.3	2.6	2.7	1.7	0.6	1.4	2.3	2.5
Specific learning disability	4.8	---	---	5.5	4.1	4.3	5.9	5.5	1.4	4.4	7.0	4.3
Speech or language impairment	2.7	---	---	3.2	1.7	3.0	2.3	2.8	1.8	1.6	3.1	2.8
Traumatic brain injury	0.1	---	---	0.1	#	0.1	0.1	#	#	#	0.1	#
Visual impairment	0.1	---	---	0.1	#	0.1	0.1	#	#	0.1	0.1	#

---Not available.

#Rounds to zero.

[1]Totals are based on overall counts of children by type of disability; they are not based on summing the counts reported for the individual racial/ethnic groups or the counts reported by sex. (Due to data limitations, summing the counts by disability type within each racial/ethnic group would result in a total overcount of 21,114 children. Because of missing data on type of disability by sex, summing the counts by disability type for males and females would result in undercounts.)

[2]For 3- to 5-year-olds not yet in kindergarten, no data are available on type of disability by sex.

[3]For 5-year-olds in kindergarten to 21-year-olds, data include only those children served for whom both sex and type of disability were reported. About 1 percent of all 5- to 21-year-olds are excluded from this table because of missing data.

[4]Although federal law does not require that states/entities and local education agencies categorize children according to developmental delay, if this category is required by state law, they are expected to report these children in the developmental delay category.

[5]Other health impairments include having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

[6]Percentages for 3- to 5-year-olds by sex are based on total public school enrollment in prekindergarten and kindergarten by sex. Percentages for 5- to 21-year-olds by sex are based on total public school enrollment in grades 1 through 12 by sex. Data on total public school enrollment by grade are available in table 203.10, but data on total enrollment by sex are unpublished. Percentages for 3- to 21-year-olds by race/ethnicity are based on total public school enrollment in prekindergarten through grade 12 by race/ethnicity. For total public school enrollment by race/ethnicity, see table 203.50.

NOTE: Data by disability type for Iowa are imputed based on the reported 2018-19 percentage distribution by disability type applied to the 2020-21 total number of children served in Iowa. Data for 2020-21 include 2019-20 data for 5- to 21-year-olds in Louisiana because 2020-21 data were not available for children in that age group. Although data are for the 50 states and the District of Columbia, data limitations result in inclusion of a small (but unknown) number of students from other jurisdictions. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Office of Special Education Programs, Individuals with Disabilities Education Act (IDEA) database, retrieved February 25, 2022, from https://data.ed.gov/dataset/idea-section-618-data-products. National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2020-21 Preliminary. (This table was prepared February 2022.)

APPENDIX A

PROJECT TIMELINE

Project Timeline

Year X												
Key Tasks	**Lead Person(s)**	**Month**										
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Form Advisory Board	Kwame & Kia	X	X										
Advisory Board survey	Kwame & Kia		X	X									
Advisory Board focus group	Kia				X								
Reach out to School Districts in VA	Kwame & Kia			X	X								
Recruit Participants	Kwame				X	X							
Develop and Pilot test interview protocol	Kwame & Kia					X							
Conduct interview	Kwame						X	X	X				

Focus group interview/session	Kwame							X					
Participant follow-up for member checking	Kia								X				
Data Analysis	Kia								X	X	X		
Writing Report	Kwame & Kia										X	X	
Dissemination of Report (conference)	Kia & Kwame											X	

APPENDIX B

BIOGRAPHICAL SKETCHES OF KEY PERSONNEL

Kwame Mensa Bonsu

Kwame Mensah Bonsu is a 3rd year doctoral student in the Special Education program in the College of Education and Human Development at *George Mason University.* Mr. Mensah Bonsu earned his Master of Education (in Secondary Education) and Master of Education (in Special Education) at Grand Canyon University and George Mason University, respectively. Mr. Mensah Bonsu's research interests are focused on special education teacher recruitment, retention, and motivation. Mr. Mensah Bonsu currently works as a mathematics teacher in a high school within Fairfax County Public Schools. Prior to that, he taught adult learners at Fairfax County Adult High School. At Fairfax County Adult High School, Mr. Mensah Bonsu had the opportunity to work with diverse adult population of whom many did not speak or understand English. Mr. Mensah Bonsu had to learn some few words in Spanish, the common language of the students to make learning accessible to the students. This experience ignited the passion to seek a more diverse teacher population to make learning accessible to our increasingly diverse student population.

Kwame Mensah Bonsu is also an adjunct Professor at Northern Virginia Community College. He has experience in teaching prospective teachers about special education with the focus of understanding students with special needs and learning strategies to help them access the general curriculum.

Mr. Mensah Bonsu was a co-presenter at the Virginia Council for Learning Disabilities (VCLD) in Norfolk, VA. He presented a paper titled "*A Dis Crit Content Analysis: A Lens for Social Justice*."

Kia R. Felder Williams

Kia R. Felder Williams is a second-year doctoral student in the ASPIRE program in the College of Education and Human Development at George Mason University, Fairfax, VA. ASPIRE is an Office of Special Education Program (OSEP) funded doctoral grant program that focuses on technology in teacher preparation and research for students with high-incidence disabilities. ASPIRE prepares scholars for higher education faculty positions to **A**dvance **S**pecial Education **P**edagogy, **I**nnovation**,** and **R**esearch toward **E**ffective interventions.

She has experience as a special educator in the urban school setting of Prince George's County, MD. Kia has instructed elementary students with high-incidence disabilities, primarily autism spectrum disorder, ADHD, and emotional and behavioral disabilities. Her major research interests center around the disproportionality of Black/African Americans in special education and include the perception of dis/ability diagnoses of parents, children, and families and the impact on care, treatment, and intervention. Mrs. Felder Williams views the intersectionality of race, culture, and education through a critical lens and leans towards a dis/ability critical race framework to define, interpret, and explore research questions.

She has two peer-reviewed publications on Using a Culturally Responsive Lens to Revise a Core Preparation Course and Cultural Humility and Universal Design for Learning as Disrupters for Disproportional Placement of students of color in special education. She has presented at four national and five local and state conferences, shared as a guest lecturer in two higher education courses, and has written the chapter: *Understanding Racial Differences in Diagnosis of BIPOC Children* in a special report entitled **Understanding Experiences of BIPOC Children and Adults with ADHD: Prevalence, Perspectives, and Access, for the national organization CHAAD (Children and Adults with Attention-Deficit/Hyperactivity Disorder)**.

Kia is currently working on a research project analyzing family perceptions of diagnosis, barriers to treatment, and racialized attitudes toward the behavior of BIPOC children with ADHD diagnoses, and she is co-writing an article regarding family engagement and cultural reciprocity. Finally, Kia is an Officer on the Executive Board of the PhD in Education Student Organization (PESO) at GMU for the 2022-23 school year.