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**Culturally Responsive Leadership and
Distributed Leadership Practices in a STEM
School**

**POSTER
PRESENTATION**

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Author

Cynthia N. Bradley, PhD

Graduate

School of Higher Education, Leadership, and Policy

Educator

Biomedical Science/Biology

cnbbmw@gmail.com

Linkedin: [Linkedin.com/in/cynthia-Bradley-phd-57893674](https://www.linkedin.com/in/cynthia-Bradley-phd-57893674)

Supervisory Committee

Cheryl Keen, Committee Chairperson,

Melda Yildiz, Committee Member,

Dimitrios Vlachopoulos, University Reviewer

Abstract

Culturally responsive leadership practices and distributed leadership are strategies that could aid racially diverse students to become successful in STEM courses and later in a STEM field. The purpose of this study was to explore culturally responsive leadership practices and distributed leadership within a STEM school to support racially diverse students. Distributed leadership and culturally responsive leadership practices were the conceptual frameworks of the study used to explore the rationale for the decision-making within a school. The research questions addressed the challenges and opportunities of implementing culturally responsive leadership practices and distributive leadership to enhance the diversity of students in a STEM school.

Doctoral Capstone

Problem

Administrators and teacher leaders may acknowledge the obstacles and differences that racially diverse students' experience as deterring them from pursuing a career in the STEM workforce and choosing to take STEM classes in school.

When implemented into the daily culture of an institution, **culturally responsive leadership practices** may support the disparities racially diverse students experience that prevents their success in a STEM school.

Purpose

The purpose of this case study was to explore the perceptions of administrators and teacher leaders using culturally responsive leadership practices with distributed leadership in a STEM school with a diverse student population.



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Significance

This study may be helpful to the district leaders, administrators, teacher leaders, teachers, and other stakeholders interested in strategies to support students from diverse communities.



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Conceptual Framework

Culturally responsive leadership practices are strategies that empower the parents of students from a diverse background, support the culture in the home, promote community involvement of poor and diverse neighborhoods, and advocate for the change of society on a large scale (Johnson, 2007).

Distributed leadership provides leadership that is shared among the school leaders, and the expertise of the stakeholders increases because the knowledge of the school administrators is shared (Erol & Turhan, 2018).

Relevant Scholarship

Culturally responsive leadership practices can

- improve the achievement gap between Black and White students (Mayfield, 2014),
- promote the history and culture of the students within a curriculum (Ylimaki & Jacobson, 2013),
- support the parental involvement for a community (Johnson, 2007),
- create an environment for racially diverse students to witness their culture valued in school (Ford, 2013).

Distributed leadership can support the school improvement necessary for school leaders and teachers to have a work environment that embraces strong collegial interactions, support among colleagues, mutual trust, and exploration (Harris, 2003a; Mascall, et al., 2008).

Research Questions

RQ 1: What culturally responsive leadership and distributed leadership practices are used by administration and teacher leaders to empower parents and support the diversity of students choosing STEM classes in a racially diverse STEM school?

RQ 2: What are the challenges in implementing distributed leadership and culturally responsive leadership practices to encourage more students of color to participate in courses in a STEM initiative curriculum?

Procedures

I chose KJSA as the data collection site because of the culturally diverse student population and the use of distributed leadership to support the decision-making for the students enrolled in STEM courses.

Data Collections

Qualitative interviews were used to understand the participants in a school setting.

I developed the interview protocols from the research questions as well as the conceptual framework and literature review.

Classroom observations were used to record the activities of the participants.

The school documents used were the lesson plans of the teachers, school flyers of events, and any written information the leaders had and were willing to share that documented their decision-making practices regarding the students.

Participant

The participants at KJSA included the principal and 6 STEM teachers, who had been employed at KJSA for at least 1 year of the school adopting the STEM curriculum. The administration and I made a list of the STEM teachers who instructed students in Grades 9–12 and participated in the decision-making of distributed leadership of the school. I discussed the inclusion criteria with the principal of the school to ensure adequate and appropriate participant selection.

Analysis

The analysis involved discovering the patterns and trends gathered based on the interviews, observations, and school documents that aligned with the research questions. I hand coded the information collected during the data collection time. Afterward, I transitioned into descriptive coding for the purposes of the qualitative research study.

Themes

Collaboration among faculty: The participants noted positive experiences working with their colleagues using distributed leadership.

Striving for positive interactions with students: The interactions among the students were mostly positive among the administration and teachers.

Community outreach to parents: Community outreach offers opportunities for students to participate in community service, which includes after school clubs and a robotics team.

Technology to support communications to diverse parents: The technology portal is a school-wide communication effort to empower parents by using technology to understand the progress of their child.

Language differences: The language barrier may prevent an understanding of the types of program implementation for the parents and students of the STEM school.

Cultural issues within the diverse student body: The administrator and teacher leaders expressed the hardships experienced with the interactions of the diverse student population in the STEM classroom.

Student motivation, preparation, and absenteeism: Student absences, motivation, and preparedness can deter the implementation of the culturally responsive leadership practices that could empower the diverse students.

Interpretation

Based on research findings, **building relationships** were integral because participants created trust and respect among teachers and students. The relationships were accomplished by teachers encouraging students to share knowledge and experiences and allowing students to express different life experiences.

Promoting inclusive curriculum and **instructional programs** were administrative strategies to model cultural responsiveness for teachers.

The **communication** was used to provide a detailed plan of the decision-making process to implement the culturally responsive leadership practices to members of the community.

There is a **lack of parental involvement** because of the language barrier between the parent and teachers.

Cultural issues related to factors such as single-parent homes challenged students in STEM classrooms.

Limitations

Limitations of the study may result from the chosen personal bias and the unwillingness of the participants to provide honest responses during the interviews.

The findings are limited to a case study in the setting of one STEM academy and may not be transferrable to another school.

The study duration of 1 week may have limited my ability to collect the data needed to address the research questions more thoroughly.

Recommendations

Recommendations for future research

- Focus on culturally responsive leadership practices in an urban STEM school in light of the students' diverse faiths and traditions.
- Complete a multiple case study of the strategies used to become an effective team using distributed leadership for at-risk students in an urban STEM school setting.

Recommendations for educators:

Teachers and administrators understand the challenges and opportunities when implementing culturally responsive leadership and distributed leadership practices.

Social Change Implications

The findings from the study may contribute to positive social change by bringing awareness of the support needed for a diverse student population.

The use of distributed leadership could contribute to providing positive social change by helping organizations become efficient in creating emerging leaders that could give structure to the implementation of policies and practices that could support members of a community.

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