

**An Investigation of Academic Recovery as a Response to Covid-19 Learning Loss in
Atlanta Public Schools: Recommendations for Academic Recovery Redesign to Mitigate
Disproportionality**

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Abstract

The US Department of Education Office of Elementary and Secondary Schools awarded grants to state educational agencies (SEAs) for the purpose of providing local educational agencies (LEAs) with emergency relief funds to address the impact that COVID-19 has had and continues to have on teaching and learning within elementary and secondary schools. Like many local school districts around the nation, Atlanta Public schools (APS) used these funds to design academic recovery programs during and after the regular school schedule targeting their lowest-performing students. Atlanta Public Schools' first Academic Recovery Academy Summer program (ARA) launched in the summer of 2021 and again in the summer of 2022; however, the program has not been evaluated for effectiveness on student academic recovery. Our clients, APS' Office of Research and Evaluation, wanted us to address this problem of practice by investigating teacher and school leader perceptions of ARA program attributes and whether these attributes made an impact on student academic recovery. The outcome of this investigation will help our clients better understand if the ARA program achieved its goals and inform the strategic planning of the 2023 summer ARA program. Our problem of practice led us to the following research questions to guide our investigation:

Q1: How did principals and teachers experience the Academic Recovery Academy?

Q2: What is the relationship between teacher and principal perception on ARA attributes and student growth in reading and math?

To answer these research questions, we analyzed principals' and teachers' survey responses who participated in the ARA program to gather their perspectives on ARA program attributes. In addition, we analyzed the relationships between principal and teacher perspectives and student

MAP data to identify which ARA program attributes had an impact on student growth. We found:

1. Teachers and leaders strongly believed that clear goals and supportive leadership were evident throughout ARA.
2. Teachers and leaders rated student resources as the lowest area of agreement yielding the lowest mean when compared to other survey items.
3. ARA's teacher and leader perceptions of accomplishing ARA goals and student resources may have contributed to ARA student growth in reading.
4. Although principals and teachers believed that resources were beneficial to ARA students, inconsistencies with the resources may have made a negative impact on ARA student growth in math.
5. Most teachers and half of the administrators surveyed reported the use of culturally relevant strategies throughout ARA.

Our key findings led us to the following literature supported recommendations for the district and program leaders:

- a) sustain ARA leadership practices,
- b) improve student supports (operational supports, instructional materials, and attendance policies),
- c) establish an evaluation/monitoring plan, and
- d) incorporate culturally, linguistically, and sustaining pedagogy into the ARA curriculum

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Introduction

The World Health Organization (WHO) declared the COVID-19 outbreak, caused by SARS-CoV-2, a public health emergency of international concern on January 30, 2020, and then a global pandemic on March 11, 2020 (Sohrabi et al., 2020). By April 2020, the United States had more confirmed COVID-19 cases and deaths than any other country in the world (World Health Organization, 2020). We watched as school districts around the country shut their doors to in-person instruction to stop the spread of the virus within schools and homes. With no certainty of when schools would reopen, districts scrambled to develop distance learning options for the continuity of teaching and learning. Atlanta Public Schools (APS) temporarily closed its physical doors and invested in digital learning platforms. Ranking as one of the largest school systems in the United States, APS designed a three-year academic recovery plan to strategically address learning loss. This plan outlines the implementation of a summer Academic Recovery Academy (ARA). Learning loss is traditionally associated with summer breaks often creating hurdles for students having to relearn previously taught concepts throughout the following school year. According to Shapira et al. (2021), low-income and non-White students experience more learning loss during the summer break than their White peers. The impact of Covid-19 exacerbated this dilemma worldwide. Over 1.5 billion children were out of school during the first peak with economic disproportionalities affecting the most vulnerable students in communities with fewer economic, educational, and social resources (Rajmil et al., 2021). District leaders of Atlanta Public Schools share that over 60 percent of their students did not experience in-person learning for over a year.

The purpose of this quality improvement study is to explore the experiences of teachers and leaders involved in Atlanta Public School's Academic Recovery Academy and its impacts

on student recovery. These experiences and their relationship to school-based academic outcomes measured by the NWEA MAP assessments drive the findings and recommendations of our study. Our method of study gauges teachers' and school leaders' perceptions of critical program components of Atlanta Public School's Summer 2022 ARA program. These components were drawn from the literature, which include the establishment of clear program goals, a shared purpose, a shared set of program strategies, sufficient student resources, supportive leadership, and culturally relevant strategies. APS utilized the winter 2021-2022 administration of the Northwest Evaluation Association's (NWEA) Measure of Academic Progress (MAP) assessment to identify candidates for the academic recovery program. Students that scored at the beginning of their grade level or below on MAP were invited to attend. Although students were identified by their academic performance, all K-8 students were welcome to attend. This mixed-methods study analyzed data from surveys completed by teachers and leaders to identify the central tendencies of perceptions of ARA program components. In addition, statistical analysis comparing survey means and NWEA MAP growth data in reading and math by school site was used to determine whether correlation was evident. A synthesis of all results informed our findings and recommendations. We anticipate the findings of our study will support considerations for improved academic recovery programming and school district improvement strategy to effectively leverage more academic recovery and mitigate academic disproportionality.

The capstone paper begins by describing our partner client, Atlanta Public Schools, and the problem of practice surrounding their Academic Recovery Academy. We then discuss research regarding learning loss and academic recovery to frame the concepts used to design our study. We then share the analytic results and key findings from this study followed by

recommendations for Atlanta Public Schools' future ARA planning and implementation. We conclude the paper with strengths and limitations of our study for considerations in future research.

Partner Organization

Atlanta Public Schools (APS) ranks as one of the largest 100 school systems in the United States serving approximately 50,000 students at 87 learning sites. Approximately 4000 teachers provide daily instruction to a diverse demographic group of learners (72.2% African American, 15.9% Caucasian, 7.6% Hispanic, 2.9% multiracial, 1% Asian, 0.2% Indian, and 0.1% Pacific) under the leadership of Superintendent Lisa Herring. APS has implemented an Academic Recovery Academy (ARA) as a strategic response to learning loss attributed to the Covid-19 pandemic for two consecutive years. ARA's second installment targeted 1,169 students who performed as the lowest achieving students on summative assessments including the NWEA MAP assessment. ARA was offered throughout June 2022 on Mondays through Fridays at 51 elementary and middle school sites. Administrators selected to serve as site principals throughout June 2022 were trained weekly from January through May. ARA principals met ~~with consultants~~ and district leaders regarding curriculum and instruction, transportation, safety and security, student discipline, hiring practices, and more to support a successful implementation. Each site leader was charged with coordinating various training for selected teachers.

APS's Office of Research and Evaluation desired to develop a deeper understanding of the perceptions of teachers and leaders who worked firsthand with ARA. This department provides system and school-level data support to ensure compliance with state accountability measures. Department leaders have been charged by the APS Board of Education to design and implement measures of accountability related to the district's academic recovery plan which includes the ARA.

Federal Funding for Academic Recovery

The federal government provided \$190 billion in aid to education agencies with the final package of aid committed in the spring of 2022. The American Rescue Plan only required districts to spend 20 percent of their package on academic recovery (Goldhaber et al., 2022). APS used their aid to supplement the school day with thirty-minute intervention blocks over the course of the school year, and like many school districts around the country, designed an academic recovery program for all grade levels over the summer months. Atlanta's inaugural ARA program began in the summer of 2021. APS district leaders have supported the implementation of this program for two consecutive summers; however, district leaders have not evaluated the effectiveness of this response. Most elementary and middle school sites in APS served as host sites for K-8 learners opting to participate in ARA. The program was optional for all students and focuses on reading and mathematics deficits for K-8 learners. Separate programming was offered to high school students to engage in credit recovery.

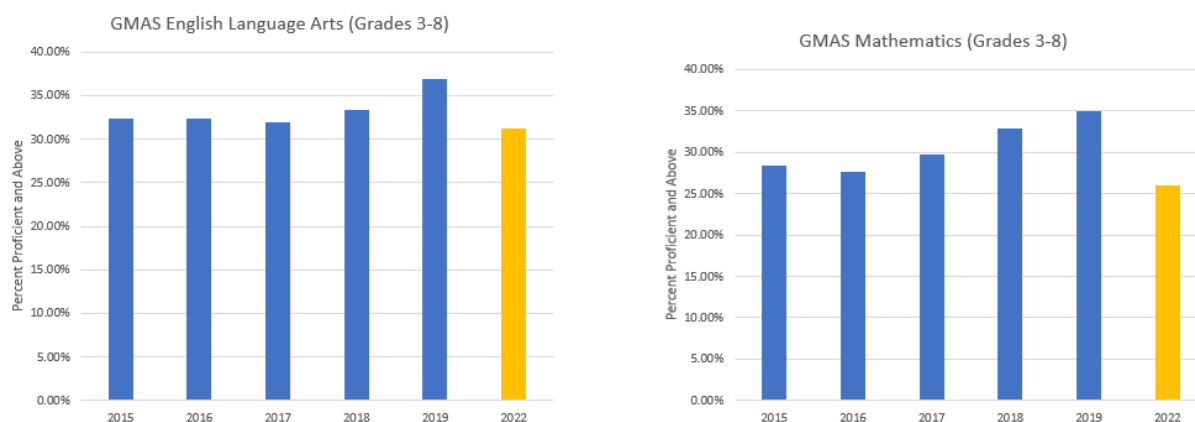
Problem of Practice

APS designed the ARA in the Summer of 2021 as an effort to recover the loss of instruction and learning from the 2020-2021 Covid-19 school shutdown. As stated, over 60 percent of APS learners did not experience in-person instruction for over a year. Additionally, the ARA program has never been evaluated for its effectiveness on student academic recovery. The purpose of this quality improvement study is to investigate the implementation of the ARA as a response to Covid-19 learning loss. Figure 1 represents summative data from the Georgia Milestones, a state assessment required for all learners in Georgia. This illustration compares academic performance over a five-year timespan before the Covid-19 pandemic to the most recent assessment data from the 2021-2022 school year (*College and career ready performance*

index, 2022). This summative assessment is a key data source that portrays learning loss associated with Covid-19.

Figure 1

Georgia Milestone Assessment System



It is important to note that the majority racial demographic of APS is African American (72.2%). According to APS' student results on the 2022 National Assessment of Education Progress (NAEP, 2022), academic gaps continue to persist with 4th-grade reading revealing an almost 40-point gap between the scale scores of African American students (190) and Caucasian students (227; The Nation's Report Card, 2022). We anticipate that the findings of our study not only inform improved recovery strategy for the 2023 ARA summer program but also contribute considerations for school district policy reform that mitigate academic disproportionality in urban school districts nationally.

Literature Review

Our literature search began with a thorough exploration of the impact of the Covid-19 pandemic on learning and understanding learning loss. Specifically, we asked, "What is learning loss?" and "How did Covid-19 school shutdowns impact learning loss?" We unpacked findings addressing these prompts and explored the recurring theme of the disproportionalities of learning

loss. We probed the literature to understand the characteristics of successful academic recovery programs and summer learning. We identified trending themes including the significance of culturally relevant pedagogy informing our conceptual framework.

Learning Loss

The phrase *learning loss* is a trending topic of interest as schools nationwide have returned to in-person learning. According to *The Glossary of Education Reform* (2013), learning loss is defined as any specific or general loss of knowledge and skills or reversals in academic progress, most commonly due to extended gaps or discontinuities in a student's education. Moscoviz and Evans (2022) define learning loss attributed to the Covid-19 pandemic as the "difference between how much students know and how much students would have known in the absence of school shutdowns" (p. 2). Learning loss is typically associated with summer break months; however, global school-wide shutdowns led to the common reference of Covid-19 learning loss.

Disproportionality of Covid-19 Learning Loss

Impoverished communities experience disproportionate rates of learning loss, especially when examining the impact of Covid-19 on learning (Dorn et al., 2020). The Covid-19 pandemic exacerbated issues of learning loss that researchers and practitioners traditionally dealt with. Currently, schools continue to brainstorm instructional strategies and work to equip learners with resources to succeed given unique demands. McKinsey and Company, a global management consulting firm, highlights racial disparities of learning loss. For example, Dorn et al. (2020) highlight that Black and Brown learners were twice as likely to lack access to live instruction throughout the pandemic. These authors analyzed assessment data from Curriculum Associates' i-Ready assessment to illustrate the impact of Covid-19. Figure 2 shown below reveals that

schools with predominantly students of color fared worse in reading and math proficiency than schools with a lesser population of students of color. The black dots represent schools with over 50% of students of color, whereas the blue dots represent schools with over 50% of white students.

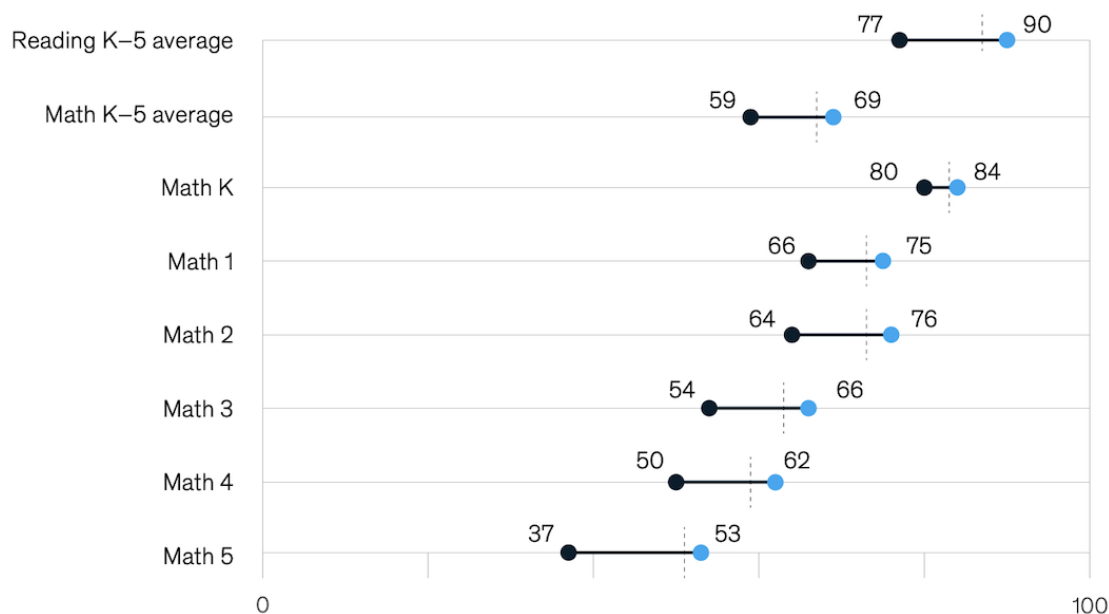
Figure 2

iReady Demographic Performance Comparisons

Most students are falling behind, but students of color are faring worse.

Amount students learned in the 2019–20 school year, % of historical scores¹

● Schools with >50% students of color All schools average ● Schools with >50% white students



¹Percent of an "average" year of learning gained by students in 2019–20 school year, where 100% is equivalent to historical matched scores over previous 3 years. Source: Curriculum Associates

The perpetuation of racial disparities associated with Covid-19 learning loss is evident in multiple studies. Halloran et al. (2021) compared student-level data from 2.1 million students in 10,000 schools from 49 states (including Washington D.C.) during the pandemic (fall 2019 to fall 2021) to a pre-pandemic period (fall 2017 to fall 2019). They documented major declines in proficiency rates in districts that shifted to remote instruction, especially in districts serving

larger populations of Black and Hispanic students (Goldhaber et al., 2022). Furthermore, a meta-analysis by Borman et al. (2005) indicates that middle class learners often sustain their reading levels over the summer, whereas poorer peers experience significant learning loss. These literature findings involving disproportionality resonated with us considering our partner organization is comprised of a majority Black and Brown student population.

Successful Summer Schools

The need for summer learning opportunities is nothing new, as students lose considerable ground academically over summer months each year. Borman and Boulay (2012) explored the phenomena of summer learning loss tied to traditional agrarian-based schools' calendars and the relation of learning loss to policies and best practices. They urge educational leaders to invest in summer learning programs, especially for disadvantaged learners. They also encourage leaders to consider support for attendance and transportation. System and school leaders should be strategic when addressing learning loss through summer programs. Strong programs accomplish specific goals such as the reversal of summer learning loss and achieving learning gains (McCombs et al., 2011). Moreover, key characteristics of successful programs involve the program's purpose, summer learning goals, individualized instruction, and program leadership.

Capizzano et al. (2007) evaluated a summer learning program commonly referred to as the BELL program: the Building Educated Leaders for Life Accelerated Learning Summer Program. The authors indicated the positive impact that teacher flexibility, addressing the *whole* child, characteristics of the staff including years of experience and education levels, and student attendance had on the overall summer program experience. Key barriers involved transportation and reported discipline issues; however, the overall evaluation yielded positive results.

Summer Learning Purpose

Summer programs have been shown to be an effective intervention to address a variety of student learning needs, including learning remediation, enrichment, and acceleration (Cooper, 2003). Whether the program is designed to provide remedial instruction or support higher-performing students, it is critical to note the intent and desired outcomes of the initiative. Cooper et al. (2000) explored 93 evaluations of summer school programs, concluding that remedial programs are successful when the program is small, and instruction is individualized. Additionally, programs with the purpose of remediation often yield better results in math versus reading. The purpose of summer learning is a key dimension for district leaders to consider when planning.

Clear Learning Goals

Establishing clear goals for summer learning is necessary to improve academic performance. Common goals are the glue that binds the system together around a problem to solve or an improvement aim. Articulating a theme, reminding people of the theme, and helping people apply the theme to interpret their work are all major tasks for school administrators (Weber, 1989). According to Weber (1989), effective instructional program inputs consist of defining the school mission, managing the curriculum and instruction, promoting a positive learning climate, observing and giving feedback to teachers, and assessing the instructional program. The most effective programs strive to reinforce core learning (Dorn et al., 2020). Spiegel (1995) warns of the importance of having clear goals regarding remediation and instruction: “Both the teacher and child should be aware of the goals of the instruction” (p. 90). Spiegel explains that teachers’ perceptions and the perceptions of learners regarding instructional purposes and goals are often different, and instructors often fail to communicate clear goals.

Supportive Leadership

Supportive leadership is necessary to accomplish the purpose and goals of a summer program. Hocine and Zhang (2014) explored the realm of autonomy as a style of supportive leadership highlighting Bill Gates' sentiment, "As we look ahead into the next century, leaders will be those who empower others" (p. 136). Moreover, it is valuable to unpack the relationship between leadership, teacher effectiveness, and academic performance. Marks and Printy (2003) explore this relationship by studying the integration of transformational and instructional leadership. According to the findings of Marks and Printy (2003), teachers provided quality pedagogical practices in school settings of integrated leadership leading to increased achievement. They encourage collaborative decision-making between principals and teachers based on these findings. They stress that principals are leaders of other leaders rather than the sole leader of a school.

A principal's leadership philosophy and style are critical influences in schools and school programs. Spillane et al. (2003) indicate the importance of principal styles of interaction as a priority when compared to their content knowledge. These authors point out principal behaviors and the impact of engaging in shared leadership. Louis et al. (2010) also stress the importance of involving teachers in decision-making as a leadership style. The support of school leaders is essential to consider when developing and designing academic programs and school improvement initiatives. The success of a school or program is influenced by its style of leadership. Jacobson (2011) highlights findings surrounding leadership styles and student achievement stressing the role that cultural sensitivity has on school success. Leadership is a key dimension to consider when planning and implementing summer learning programs and training.

It is evident that shared decision-making and inclusivity are major factors influencing a school's performance.

Academic Recovery

The goal of APS' summer program was to address learning loss that was due to Covid-19. The University at Albany defines *academic recovery* as programming that provides personalized and collaborative academic support to students that are facing academic difficulties and are in probationary academic standing (University at Albany State University of New York, n.d.). Academic recovery as defined on the APS' ARA website is the opportunity for students to receive virtual or in-person instruction that will address unfinished learning and academic learning loss, provide hands-on lessons via Power Up Programming, ~~and recover course credits~~ in an engaging, incentive-filled environment with embedded whole-child and social-emotional supports (University at Albany State University of New York, n.d.). Academic recovery initiatives can be offered during school, after the school day, on weekends, or throughout the summer months. Protheroe (2006b) encourages academic recovery concluding that successful programs meet individual students' academic needs and indicates that staff are prepared for and equipped with specific instructional strategies.

Academic Recovery Resources

It is important to consider the usefulness of resources and its impact on student learning. Kimeu et al. (2016) investigated the influence of instructional resources on academic performance, revealing a correlation between the two. Additionally, Opfer et al. (2016) shared findings involving instructional materials and community demographics. For example, schools with higher percentages of students benefiting from free and reduced lunch were more dependent on online materials, whereas teachers in more affluent schools developed their own materials.

These authors emphasize that teachers need quality resources aligned with state standards in order to support learners. Alabi (2008) views the classroom teacher as a resource and indicates that teachers give knowledge. According to Alabi, teachers are valuable resources given teachers must integrate multiple resources using their best judgment to ensure that learners are actually learning.

Cultural Experiences

As schools grow to be more culturally diverse, building cultural relevance in the classroom became a huge expectation for school districts around the country. Due to the history of systemic and structural racism in the United States, many of our Black and Brown students continue to experience low-quality and low-resourced learning. Powell (2008) notes that there is a need for school districts to understand Black and Brown student situatedness in systems and structures beyond methodological individualism. Beverly Daniel Tatum's (1997) work, *Why Are All the Black Kids Sitting Together in the Cafeteria*, explains that racial identity development theory is rarely discussed in social research; therefore, most people, even those who studied child psychology, are not well informed on the role of race and ethnic identity in child development given its historical emphasis on White, middle-class children. Collins (2018) suggests that students' academic and career choices, effort, and persistence are influenced by various psychological factors including their identity, interests, value perceptions, competency beliefs, and achievement goals. When racial identity development is not present, Black and Brown children become susceptible to stereotype threats that become a psychological and physiological burden leading to underperformance in areas such as math and science (Oliver et al., 2017).

Why Culturally Relevant Pedagogy is Critical to Academic Recovery

Johnson (2017) thoroughly unpacks and explains culturally responsive leadership through the lives of three educators from around the globe. She describes culturally responsive leadership as practices that involve high academic expectations. These leaders include a school community's history, values, and culture within the curriculum. Although the demographic identity of students continues to become more diverse, the National Center for Education Statistics reports that approximately 79% of teachers identify as White females as of 2020 (National Center for Education Statistics, 2020). Moreover, significant gaps continue to exist between minority and majority learners. Culturally responsive leadership involves analyzing and addressing these academic opportunity gaps. Madkins and Morton (2021) encourage educators to develop their knowledge and skills surrounding culturally responsive pedagogy to reduce academic gaps. Creating an atmosphere where young learners are psychologically safe and experience a sense of belonging yields improved achievement outcomes. Gay (2002) stresses that teachers are not prepared to teach diverse learners. It is evident that professional learning opportunities and support involving culturally relevant pedagogy are critical for high-performing educators and school systems.

Martin (2012) calls for a focus on learning and identity, two centrally important considerations in children's mathematical development. The mathematical behaviors and outcomes of White children have typically been normalized as the standard for all children for too long. The discursive practice of referring to Black-White racial gaps in reading and mathematics achievement and notions of closing such gaps by raising Black achievement to the level of White achievement contribute to this normalization and perpetuates the narrative that Black children remain at the bottom of the racial hierarchy in education (Ladson-Billings, 2006;

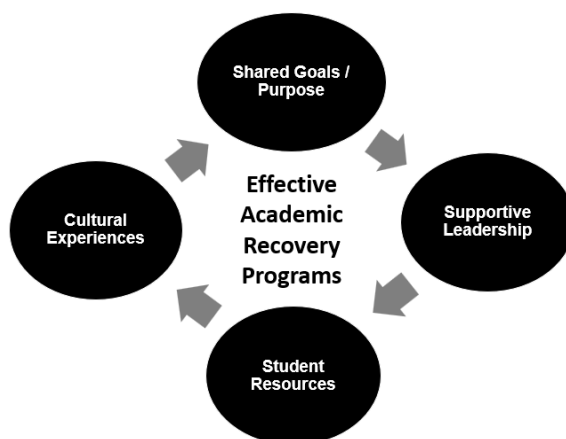
Perry, 2003). Culturally relevant education disrupts the current White-dominant academic structures and redresses schooling with students' racial, cultural, and linguistic identity as the pathway to learning. Aronson and Laughter (2016) conducted a research synthesis regarding disproportionate rates of student achievement and culturally relevant education (CRE) and indicated that the engagement of CRE across the content areas resulted in positive increases in academic skills and concepts. They strongly emphasize the significance of connecting to students' cultural backgrounds.

Conceptual Framework

Based on the literature trends and information that our client would like to obtain about the effectiveness of ARA, we determined the four conceptual components of our research as the approach to the problem of practice: 1) Shared Goals / Purpose, 2) Supportive Leadership, 3) Student Resources, and 4) Cultural Experiences. These interconnected dimensions informed the development and design of our study. Figure 3 shown below captures a visual of our conceptual framework.

Figure 3

Conceptual Framework – Effective Academic Recovery Programs



Study Design

Research Questions

Based on our investigation of the literature on effective academic recovery, we formulated the following research questions:

Q1: How did principals and teachers experience the Academic Recovery Academy?

Q2: What is the relationship between teacher and principal perception on ARA attributes and student growth in reading and math?

Participants

To recruit survey participation, APS Department of Research and Evaluation compiled and shared an email list of 110 returning school staff who either served as an ARA teacher, instructional coach, or site administrator throughout the summer of 2022. We sent one email to the email list and another email prior to the close of the survey. Additionally, APS included a message about participation in our research and the survey link in the weekly school leader newsletter. Participants were informed of incentives including gift card giveaways. The Qualtrics survey was open for two weeks resulting in a total of 46 participants, which included 28 teachers, 1 instructional coach, 3 administrators, and 3 who did not provide a title. This yielded a 42% response rate representing 17 of 51 ARA school sites.

Data Sources, Collection, & Analysis

Overview

A mixed-methods approach was designed to answer the research questions with APS' Academic Recovery Academy. Data was collected from two key sources: 1) surveys provided to ARA leaders and teachers and 2) NWEA MAP reading and math average growth data by each school for assessments administered in spring 2022 and fall 2022. Surveys consisted of six Likert rating items and two yes or no items with prompts for participants to explain their answers. The MAP data provided comparisons of average growth scores between the spring and fall MAP administration for each school site for two student groups: ARA participants and non-ARA participants. Data was triangulated to inform the findings and recommendations for this study. Table 1 shown below outlines the project questions and data sources that were used to answer each question.

Table 1

Data Collection Table

	Teacher and Program Leader Surveys	NWEA MAP Spring 2022 and Fall 2022 Assessments - Mean Growth Data by School
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How did teachers and principals experience the Academic Recovery Academy program?	X	
What is the relationship between teacher and principal experiences and student growth in reading and math?	X	X

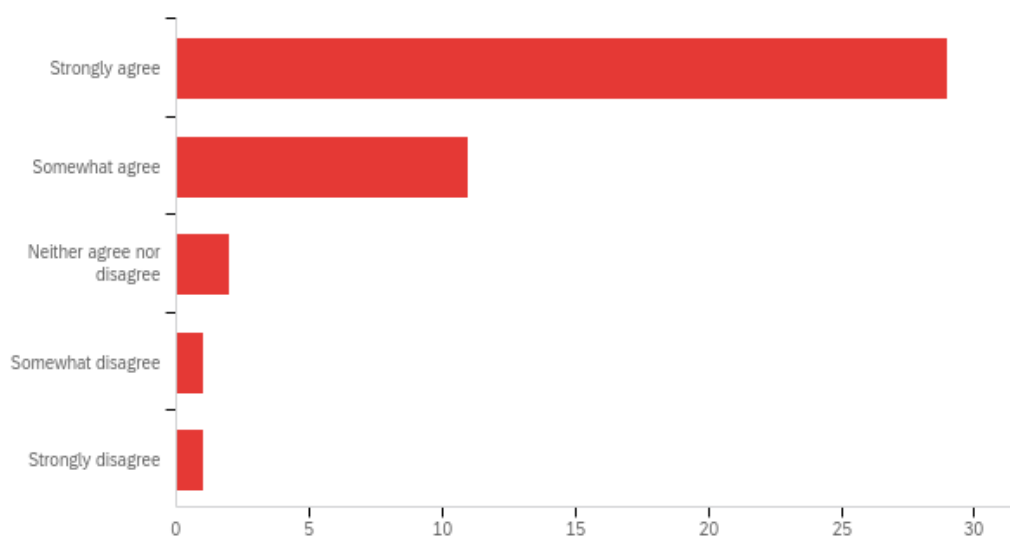
Surveys

Survey items were designed in collaboration with APS' Department of Research and Evaluation. Surveys established by UnboundEd that have been used to evaluate cultural competence in academic programming influenced the development of the ARA survey design (see Appendix A for the full survey). We gathered feedback from ARA elementary and middle school teachers and leaders (instructional coaches and administrators) to understand the perception of ARA, usefulness of resources, and insight to inform future implementation. Qualtrics was used to gather data from multiple choice response items using a Likert rating scale from 1 (strongly disagree) to 5 (strongly agree) and open response items. The two open-response items probed participants to explain their experiences regarding challenges meeting program goals and culturally relevant practices. Survey respondents indicated their role, school site, and grade level(s) served before responding to survey items aligned to the research questions. Qualtrics reports allowed each question to be analyzed by providing graphs and descriptive statistics of each response item. An example data illustration of all respondents to a survey

question downloaded from the Qualtrics platform is shown below in Figure 4. Qualtrics provides a filter feature allowing responses to specific items to be categorized by position type (teacher, instructional leader, administrator). See Appendix C for downloaded graphs for each survey item showing the responses of all participants.

Figure 4

ARA Teacher and Administrator Survey



NWEA MAP Assessment Results

The Northwest Evaluation Association, commonly referred to as NWEA, designed a Measures of Academic Progress (MAP) assessment currently used in approximately 9,500 schools, systems, and educational agencies worldwide (NWEA, 2022). This adaptive achievement and growth test is administered to all K-8 learners in APS at the beginning and end of each school year. APS provided us with NWEA MAP average growth rates between the spring 2022 and fall 2022 administrations for both reading and math. Descriptives included in this data are outlined below based on the spring 2022 and fall 2022 MAP administrations:

- a) APS school site (51 elementary and middle schools)

- b) average MAP reading growth (spring 2022 to fall 2022) for ARA participants (by school and district)
- c) average MAP reading growth (spring 2022 to fall 2022) for nonparticipants of ARA (by school and district)
- d) average MAP math growth (spring 2022 to fall 2022) for ARA participants (by school and district)
- e) average MAP math growth (spring 2022 to fall 2022) for non-participants of ARA (by school and district)

MAP growth measures the performance and any improvement between a student's pre-assessment (spring 2022) to their post-assessment score (fall 2022). The average growth scores for both groups (ARA participants and non-ARA participants) were used to calculate a difference range. Specifically, the difference was determined by subtracting the average growth of students who did not participate in ARA from students who did participate. See Appendix D for the average growth and differences between both groups for each school.

Data Analysis

Each data source was analyzed using methods outlined in Table 2 below. Sources of data collected for this study include a survey provided to teachers, instructional coaches, and site administrators via Qualtrics, and NWEA MAP average growth data by school site.

Table 2

Data Analysis Source Table

Data Source	Method of Analysis
Surveys	Likert Scale - Central Tendency Measures Open-Response - Thematic Coding
NWEA MAP Growth Data (spring 2022 to fall 2022 assessment scores)	Spearman Correlation

Likert Rating Items

Surveys consisted of six questions using a Likert scale outlined in Table 3 below and two yes or no questions with prompts for participants to explain their response.

Table 3

Survey Likert Rating Scale

1. Strongly Disagree	2. Strongly Disagree	3. Neither Agree or Disagree	4. Somewhat Agree	5. Strongly Agree
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The mean and standard deviation of each Likert rating survey item above was calculated. Comparisons of the means were made to report measurements of the perception of participants regarding survey items. Additionally, we examined differences by position title (teachers and administrators).

Open-Response Items - Thematic Codes

Thematic coding was conducted to capture trends in the responses of participants. An inductive analysis was conducted beginning by 1) listing all responses (raw data), 2) chunking the responses, and 3) labeling the chunked data as descriptive categories and determining patterns (Bhattacharya, 2017).

Correlation Analysis

We conducted a Spearman Correlation Coefficient analysis to understand whether principal and teacher *perceptions of ARA characteristics* (Variable 1) had any impact on *student growth measures* (Variable 2). The Spearman Correlation Coefficient was better suited for our analysis as it accounted for a wider spread in our smaller sample. Our analysis drew on a difference-in-difference statistical test conducted by APS, a quasi-experimental approach that compares the changes in outcomes over time between the treatment population (ARA participants) and a comparison population (non-ARA participants).

Results

Table 4 and Figure 5 displays results from each Likert rating survey question and compared responses of teachers and administrators. The mean scores of the combined participants range from 3.98 ($SD = 1.16$) to 4.56 ($SD = 0.86$). The highest combined mean scores were Question 1: *clear goals* ($M = 4.56$, $SD = 0.86$) and Question 6: *supportive leadership* ($M = 4.49$, $SD = 1.02$). The lowest combined mean was Question 5: *beneficial resources* ($M = 3.98$,

$SD = 1.16$). The mean of teacher participants ranges from 4.12 ($SD = 1.10$) to 4.61 ($SD = 0.82$). The highest teacher means involve *clear goals and supportive leadership*. The lowest teacher mean corresponds to the lowest administrator's mean entailing beneficial resources throughout the program. All survey results are included in Appendix B.

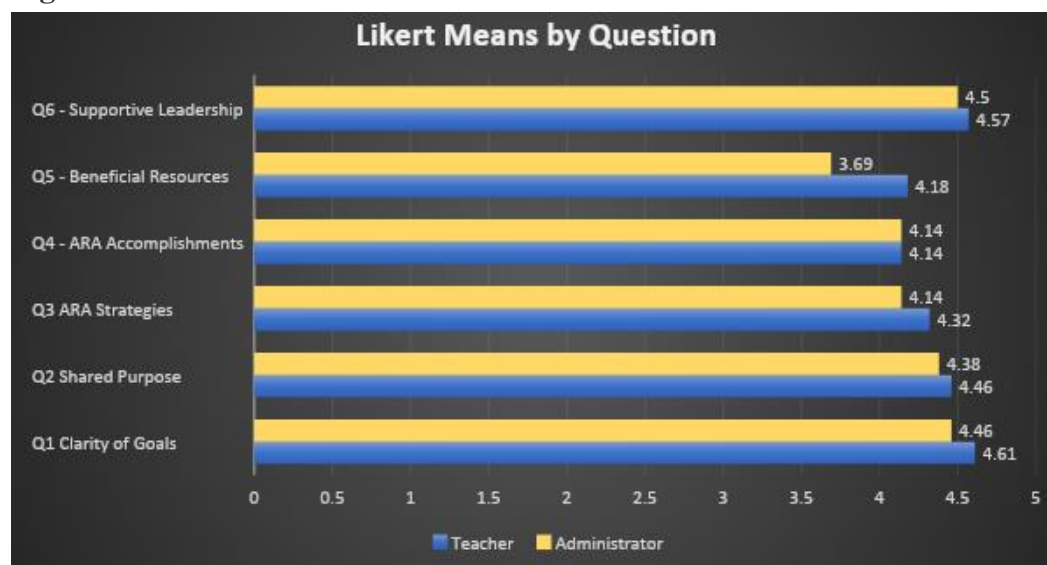
Table 4

Likert Rating Response Items

Survey Item	Teachers	Administrators	Total Participants
Question 1. I was clear of my school's goals for the Academic Recovery Academy.	$M = 4.61$ $SD = 0.82$ $n = 28$	$M = 4.46$ $SD = 0.93$ $n = 13$	$M = 4.56$ $SD = 0.86$ $n = 44$
Question 2. School leaders and teachers at my program site had a shared understanding of the purpose of the Academic Recovery Academy.	$M = 4.46$ $SD = 0.94$ $n = 28$	$M = 4.38$ $SD = 0.74$ $n = 13$	$M = 4.44$ $SD = 0.88$ $n = 44$
Question 3. School leaders and teachers at my program site agreed on the strategies used to achieve the purpose of the Academic Recovery Academy.	$M = 4.32$ $SD = 1.07$ $n = 28$	$M = 4.14$ $SD = 1.06$ $n = 14$	$M = 4.24$ $SD = 1.06$ $n = 45$
Question 4. The Academic	$M = 4.14$	$M = 4.14$	$M = 4.09$

Recovery Academy program at my school accomplished its goals.	$SD = 1.09$ $n = 28$	$SD = 1.06$ $n = 13$	$SD = 1.07$ $n = 44$
Question 5. The resources available to support students throughout the Academic Recovery Academy were beneficial.	$M = 4.12$ $SD = 1.10$ $n = 28$	$M = 3.69$ $SD = 1.14$ $n = 13$	$M = 3.98$ $SD = 1.16$ $n = 44$
Question 6. The leadership team at my school site supported instructors throughout the Academic Recovery Academy program.	$M = 4.57$ $SD = 0.78$ $n = 28$	$M = 4.5$ $SD = 1.12$ $n = 14$	$M = 4.49$ $SD = 1.02$ $n = 45$

Figure 5



Open-Ended Survey Items

Two yes/no and open-response survey items were included as Question 7 and Question 8. Participants indicated yes or no to each question and explained their answers. The percentage of yes and no responses are captured in Figures 5 and 6 below. Thematic coding was previously used to determine trends in the open-response probes for each question. For each open-ended question, a graph showing the response rates and a brief explanation are provided.

Figure 5 shown below outlines the percentage of participants by job title who indicated yes or no when prompted about challenges and program goals from Question 7: *Did you experience any challenges that prohibited you from reaching the program goals of the Academic Recovery Academy? Please indicate yes or no and explain.*

Figure 6

ARA Survey Results – Program Challenges

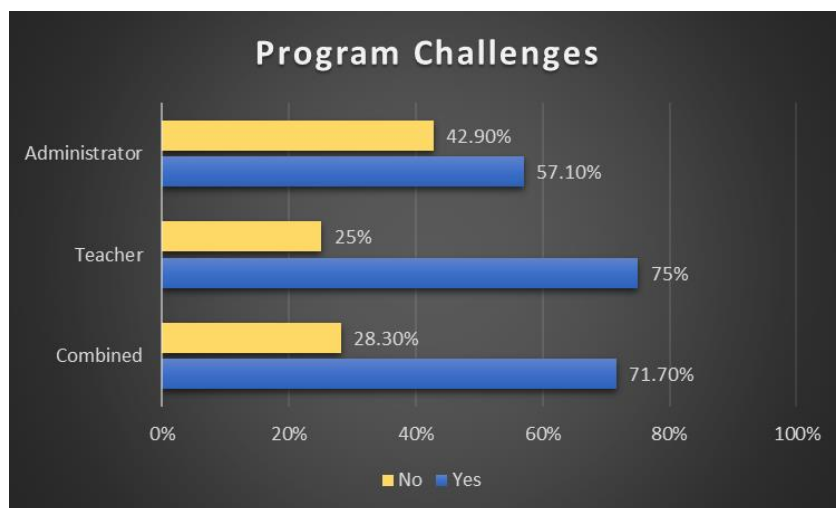


Figure 6 shows that 75% of teachers communicated that they experienced challenges throughout the ARA program. This was higher as compared to administrators, where approximately 57% of ARA administrators indicated an experience with program challenges.

Participants shared any challenges they experienced towards reaching the program goals of ARA. The three themes that emerged in the coding process included: 1) *Program Operations*, 2) *Instructional Resources*, and 3) *Student Engagement*. See Appendix B for a full list of coded data.

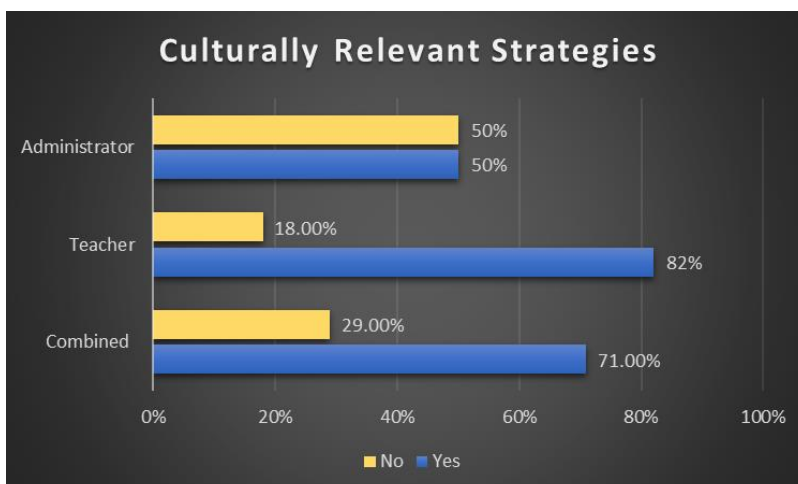
1. *Program Operations* entail responses that describe the structural and operational components of the Academic Recovery Academy. These responses included but were not limited to bus transportation for students and staffing-related strengths and weaknesses.
2. *Instructional Resources* involve responses related to materials provided or not provided to support learning such as Chromebooks, internet, and instructional materials. These participants often referenced Chromebooks, the term *resources*, lessons, and other terms descriptive of instructional needs to support the learning environment.
3. *Student Engagement* encompasses three aspects: student attendance, behaviors, and enrollment.

The complete list of all coded responses is included in Appendix C.

Figure 7 outlines the percentage of participants by job title who responded yes or no when prompted about culturally relevant strategies as an instructional support from Question 8: *Did you use specific strategies to connect to students' cultural experiences? Please indicate yes or no and explain.*

Figure 7

ARA Survey Results – Culturally Relevant Strategies



As illustrated in Figure 7, 82% of teachers indicated that they used culturally relevant strategies in their ARA classroom whereas only half of the administrators expressed that they used culturally relevant strategies. Participants also described the strategies they used to connect to students' cultural experiences. Three themes emerged from coding these responses: 1) *Teacher Actions*, 2) *Instructional Supports*, and 3) *Program Structure*. See Appendix B for the full list of coded data.

1. ***Teacher Actions*** include connecting to student backgrounds, translating information for native Spanish speakers, social-emotional learning, and more.
2. ***Classroom Resources*** include specific materials that teachers or leaders incorporated throughout the program. For example, a teacher shared that they used culturally responsive materials.
3. ***Program Structure*** represents culturally relevant components that influenced the program at large.

All coded responses are shown in Appendix C.

Identification of ARA Students and Average Growth Score Difference by School

Students who were targeted for ARA programming scored within the lowest tier of proficiency estimates on December 2022 winter NWEA MAP administration with ¹RIT scores +/- 4 points as the threshold. Student spring 2022 and fall 2022 MAP raw scores were used to generate average growth scores by school. The average growth scores between ARA and non-ARA participants by school were subtracted from one another to get the average growth difference by school. Average growth scores were preferred to measure achievement growth due to the dynamics within the student body, such as special education, low income, and English Language Learners.

The school-level regression discontinuity analysis was intended for the purpose of district-level programmatic perspective/insights that will help to inform the 2023 ARA summer program design. Dashboards are provided to school leaders and teachers for disaggregation at the student level.

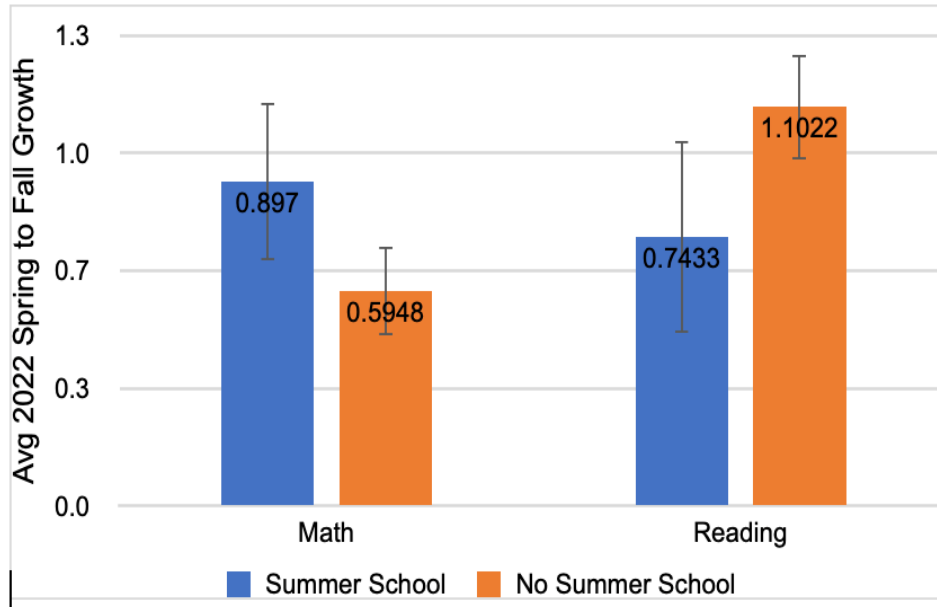
2022 Spring to Fall MAP Growth Between ARA Students and Non-ARA Students

Figure 8 shows the 2022 spring to fall MAP average growth differences between ARA summer school students and non-ARA summer school students at each ARA school site.

Figure 8

Average 2022 MAP Spring to Fall Growth

¹ RIT stands for **R**asch **U**n**I**T and is a measurement scale developed to simplify the interpretation of test scores. It is an equal-interval scale, like feet and inches on a ruler, so scores can be added together to calculate accurate class or school averages.



Overall, ARA students demonstrated more growth in math and less growth in reading by school than their non-ARA peers between the 2022 spring to fall MAP assessments.

The Relationship Between Principal and Teacher Perception of ARA Programming and Average Student Achievement Growth by School

Spearman's rank correlation coefficient was computed (shown in Table 5 below) to assess the relationship between principal and teacher perceptions of ARA attributes (variable 1) and average student growth scores in reading and math (variable 2).

Table 5*Spearman Correlation Coefficient Matrix*

Spearman Correlation Coefficient Matrix		
ARA Attributes (Survey)	Avg. Reading Growth Diff	Avg. Math Growth Diff
Clear Goals	-0.11	0.17
Shared Understanding	0.09	0
ARA Strategies	0.11	0.11
Accomplished ARA Goals	0.36	0.01
Beneficial Student Resources	0.33	-0.22
Supportive Leadership	0.04	-0.04
Program Challenges	-0.22	0.4
Cultural Experiences	-0.13	-0.1

- **Achieved ARA Goals:** Principals' and teachers' perceptions of ARA goal achievement have a weak but more positive impact on ARA students' growth measures as compared to non-ARA students in reading.
- **Beneficial Student Resources:** Principals' and teachers' perceptions of the ARA resources being beneficial to students have a weak but positive impact on ARA students' growth scores as compared to non-ARA students in reading.

- **Beneficial Student Resources:** Principals' and teachers' perceptions of the ARA resources being beneficial to students have a weak but negative impact on ARA students' growth measures as compared to non-ARA students in math.

Key Findings

The analysis around our research questions (*How did principals and teachers experience the ARA program? What is the relationship between teacher and principal perception of ARA attributes and student academic growth?*) rendered the following key findings:

ARA Goals and Beneficial Resources had a Positive Impact on Reading Growth

The major goal of ARA was to recover student learning loss from the pandemic school shutdown and increase reading and math readiness for the 2022-2023 school year. ARA principals and teachers received training between January 2022 and May 2022 on the ARA's curriculum, resources, and operations. Establishing a clear goal of student recovery followed by consistent academic recovery training had a positive impact on ARA average reading growth. Spearman's rank correlation determined the strongest relationship between [Accomplished ARA Goals] and [Average Reading Growth Difference]. There was a [positive] correlation between the two variables, $r(14) = [.36]$, $p = [.0016]$. Spearman's rank correlation determined the second strongest relationship between [Beneficial Resources] and [Average Reading Growth Difference]. There was a [positive] correlation between the two variables, $r(14) = [.36]$, $p = [.0016]$. ARA average reading growth is promising; however, ARA students still have a wider learning gap to close in reading than non-ARA students.

ARA Teachers Mostly Benefited from Support Provided by Their Site ARA School Leaders

We found that school leader support for teachers rendered the highest Likert score mean and had a positive effect on the average mean reading growth for ARA students by school. It is

important to note that the results have uncertain stability due to the small sample sizes at each school with cases of only 1 respondent to survey questions. However, the preliminary analysis demonstrates an agreement between the qualitative analysis and the correlations, which leads to an increase in confidence. As stated by teacher participants, “Support was awesome!” and “Everything was explained well during training.”

Inconsistent Resources had a Negative Impact on Math Growth

Beneficial Resources rendered the lowest Likert mean for both teachers and leaders (Total Mean = 3.98). Spearman’s rank correlation determined a negative relationship between **[Beneficial Resources]** and **[Average Math Growth Difference]**, $r(14) = [-.22]$, $[p=.0016]$. One teacher survey participant indicated “not enough resources such as Chromebooks and manipulatives” and others referenced the delayed arrival of resources. For example, one teacher participant simply stated “materials arrived late.” We wonder if there was a greater focus on reading goals and reading resources than math resources. This could be the case, as the 2022 Georgia Milestone data and fall 2021 MAP data demonstrate that students experienced significantly lower learning loss in reading than in math.

Recommendations

Enhance ARA Leadership Training and Practices Through Teacher Perspective

ARA district leaders and program coordinators should sustain current site-based leadership practices, such as the leader and teacher selection protocol and comprehensive training on program curriculum and operations between January and May. However, in order to increase feasibility and sustainability of programming for better student recovery, teachers must be a part of program decision-making at both the district and school levels. Handelzalts (2009) and Kerr (1981) communicate that lesson planning, curriculum design, and instruction are

influenced more by considerations concerning concrete classroom activity than by abstract subject-matter knowledge or learning goals (Light et al., 2005). Teachers' 'in the trenches' reasoning reflects their practical concerns as contingencies, limitations, and opportunities in classroom practice. This practical reasoning is critical to the program's design for student learning experiences. Found in literature, the most salient teacher perspectives are: (a) organizational issues ('how much time is available, how are students seated, what classroom do I have available'; de Kock et al., 2005); (b) relationship between student and activity (how will students react to this, what will students do with it; Deketelaere & Kelchtermans, 1996; George & Lubben, 2002; Parke & Coble, 1997); or (c) how subject-matter is delivered to students in such a way that it becomes feasible in practice (Handelzalts, 2009). As the saying goes, "The people that are closest to the challenge are the people closest to the solution." We recommend using the results of this study to capture teacher perspectives on program components and adding teachers from various grade levels and content expertise to ARA planning sessions.

Improve Student Support Resources

Survey results indicate that the perception of resources to support students is an area of ARA improvement. Specific resources to improve include transportation, instructional materials, and attendance. ARA resources to support students yielded the widest gap between the mean responses of teachers and administrators and resulted in the lowest mean of all surveyed items. Teachers and leaders conveyed that curriculum materials arrived late in the program; there were weekly challenges with transportation, and student attendance was inconsistent. The availability of curriculum, reliability of transportation, and consistency of attendance are all critical areas for academic engagement as it provides protection against the 'summer slide,' a term used to

indicate the loss of academic skills (Kirkland et al., 2008). We recommend the following strategies for improved resources to support ARA students.

Initiate Transportation Planning At least Six Months Prior to ARA programming

- Identify students' individual transportation needs, especially the needs of students with disabilities.
- Work closely with the district's transportation department to identify pick-up and drop-off locations and action steps of communication between summer school sites and home when students are late or absent from the bus.
- Communicate students' bus routes to their summer sites early so that families are aware and can prepare for their child's summer schedules, or if changes need to be made, they are made in enough time that doesn't disrupt the students' attendance.

Develop a Clear Attendance Plan that Includes Daily Attendance Incentives

- ARA teachers and principals interact with students daily; therefore, it is recommended that they conduct a root cause analysis around student attendance concerns using a protocol, such as the "5 Whys" shared by The Massachusetts Department of Elementary and Secondary Education Data Team Toolkit, Module 4. MDESE indicates that a root cause analysis can help a group with varying opinions narrow the field of contributing factors until the group agrees on what one(s) will yield the biggest bang for the buck acted on. The '5 Whys' outlined by MDESE is a simple, accessible, and time-efficient protocol commonly used for the purpose of identifying root causes of a problem of practice, which include: 1) write the problem being addressed, 2) ask the group to give a reason why this is happening (the first cause), 3) record the answer, 4) ask the group why the first cause is happening, 5) record the answer, and 6) repeat five times or until

reaching the root cause (Massachusetts Department of Elementary and Secondary Education [MDESE], n.d., p. 208).

- Once root causes are identified, develop a district-wide and/or school-level plan with change actions including daily/weekly incentives that mitigate the root causes and encourage daily attendance during the ARA program. This plan should be shared with families during the ARA student and family orientation and via the ARA website for future reference.

Create Efficient and Timely Distribution of Instructional Materials to ARA Summer Sites

- Build time into ARA planning for delivery and distribution of instructional materials to each school site. The amount of time required for distribution will depend upon the challenges associated with getting materials to their ultimate destination, the number of materials to be distributed, and the number of people assisting in the distribution process. It may also be useful to include distribution instructions on the packaging materials so that those who have been recruited to hand them out or leave them at local establishments are clear on their task.

Establish a Monitoring/Evaluation Plan to Track Student Performance

Borman and Boulay (2012) share that both formative and summative evaluations are beneficial to understanding opportunities for immediate and long-term improvement in summer programming. Evaluating student performance throughout the program allows teachers to adjust teaching and provide intervention strategies for student mastery of concepts. We suggest that the ARA district planning team consider the following:

- Establish a pre- and post- curriculum aligned assessment design. Utilize the same assessment system for both the pre-assessment and post-assessment in order to maintain the consistency and quality of assessment questions and activities.
- Establish curriculum-aligned assessment benchmarking weekly as temperature checks for student understanding and needed learning adjustments.
- Encourage teachers, leaders, parents, and students to participate in a validated survey at the beginning and end of ARA to evaluate curriculum and operational needs.

Redesign ARA Program Curriculum with Culturally Relevant Content, Pedagogy, and Training.

82% of surveyed teachers indicated that they implemented culturally relevant practices. However, the culturally relevant activities that were highlighted by teachers and principals were auxiliary to the curriculum, such as adding “Soccer in the Streets partnership” and Juneteenth as a cultural celebration and learning opportunity as noted in Appendix B. We recommend that the ARA district planning team develop a curriculum focus group of teachers, administrators, students, and families over the course of the school year to interrogate and provide critical funds of knowledge (FoK) for cultural relevance to ARA curriculum content. FoK is critically important to the learning process for Black and Brown students in a White dominated education system. Rios-Aguilar et al. (2011) argue that funds of knowledge foster the use of family and community resources to enhance pedagogy by incorporating knowledge, information, and forms of economic exchange into the classroom. Teachers and schools that are armed with the tools to enact a culturally responsive pedagogy are capable of effectively addressing the achievement gap (Griner & Steward, 2013).

We also recommend identifying a teacher, coach, or consultant with culturally relevant expertise to provide professional development to teachers between the January 2023 and May 2023 ARA training period. This approach situates ARA for a more individualized approach to academic recovery by allowing teachers time to learn, collaborate, and approximate insights into their students as learners and be able to craft cognitive hooks between their students' funds of knowledge and standards-based content in authentic and meaningful ways that make learning sticky (Hammond, 2014).

Strengths and Limitations

Strengths

Our study consists of a small sample size despite the survey response rate. Studies with a small number of subjects can be quick to conduct with regard to the administration of surveys and collection/analysis of both quantitative and qualitative data. The research question can be addressed in a relatively short period of time. Obtaining ethical and institutional approval is easier in small studies compared with large studies. Hacksaw (2008) states that it is often better to test a new research hypothesis in a small number of subjects first as it avoids spending too many resources (e.g., subjects, time, and financial costs) on finding an association between a factor and academic outcome such as the case of this study.

Our findings indicate that certain ARA characteristics have an impact on average student reading growth scores; however, it is unclear where the growth exists in reading and at what rate. If an association is found, it is important that we clarify in the conclusions that it was from a hypothesis-generating study, and a larger confirmatory study is needed. We highly recommend that this small study be used as an initial investigation for a more in-depth study into ARA program effectiveness.

Limitations

There were a few limitations to our investigation into ARA. For instance, ARA teachers and principals were given a three-week time frame at the end of programming to respond to the survey, which ran into planned summer vacations. Summer vacation is the time for rest and reflection without duties before the start of the new school year for most teachers; therefore, we anticipated inconsistent survey completion at each school site. Notably, population sizes (Ns) at each school were very small (oftentimes 1 response). The results of the statistical analysis within this research will have uncertain stability, and follow-up research will need to be done with more appropriate Ns.

Summary data (average MAP growth score differences by school sites) provided by APS' Office of Data and Accountability did not allow for us to conduct an in-depth correlation between ARA program attributes and student growth. Although our analysis finds growth in reading, we could not specify the impact that ARA program attributes had on achievement growth per student. It is important to note that APS requested that we only provide an overarching summary analysis to inform the redesign of district-level ARA program planning and execution for summer 2023. Student data dashboards are available to teachers and principals allowing for targeted analyses.

Saleh and Bista (2017) find that participants prefer completing electronic surveys received mostly from students, colleagues, and authority figures (e.g., department chair or higher) compared to people from outside organizations whom they do not know personally or professionally. This justifies that although the Office of Data and Accountability added the survey to the district-wide principal newsletters that go out on Sunday evenings, having ARA

district administrators or site principals provide direct reminders to teachers may have rendered more quality responses.

A salient threat to internal validity in this study is the Hawthorne Effect, which is an effect of the experiment itself (Babbie, 2015) on both the teacher and principal populations. Academic recovery is the focus for most school districts around the country. The use of ESSER funding to close academic gaps due to the pandemic school shutdown is high stakes with very strict guidance on recovery programming and policy. Administering a survey to teachers and principals to measure recovery program effectiveness may render overconfident responses due to its perceived association with evaluation.

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Appendix A

Qualtrics Survey

Academic Recovery Academy (ARA) Teacher and Leader Survey Screenshot

Purpose of the Academic Recovery Academy Program Survey.

This brief survey supports a quality improvement project between Vanderbilt University Peabody and Atlanta Public Schools that aims to identify academic recovery program components that effectively address the recovery of student learning due to Covid-19.

Meet the Researchers.

Yozmin and Jarrett are doctoral students at Vanderbilt University Peabody and current educators in the Boston Public Schools and Clayton County Public Schools Systems. They are committed to the relentless work of school improvement by empowering educators to intentionally and strategically address the equity gaps of minoritized learners that continue to plague our schools nationwide. This project design stems from their passion to invoke critical conversations in decision making around education policy and practice.

\$100 Gift Card GIVEAWAY and more!

This survey is voluntary. Survey participants will be registered for a drawing for a \$100 visa gift card. Additionally, the first ten survey respondents will receive a \$10 Amazon Gift Card. Gift cards will be sent via the email provided at the end of this survey.

Please note that recorded emails are not associated with survey responses.

Confidentiality Statement.

Participating in this study is voluntary and your responses are completely confidential. All participant identities will be kept confidential and all names will be replaced with pseudonyms when reporting findings.

Which Academic Recovery Academy school site did you teach at?

Which grade level(s) did you work with?

- Kindergarten
- 1st Grade
- 2nd Grade
- 3rd Grade
- 4th Grade
- 5th Grade
- 6th Grade
- 7th Grade
- 8th Grade

Which position best describes your role in the Academic Recovery Academy (ARA)?

- ARA Teacher
- ARA Instructional Coach
- ARA Administrator

I was clear of my school's goals for the Academic Recovery Academy.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

School leaders and teachers at my program site had a shared understanding of the purpose of the Academic Recovery Academy.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

School leaders and teachers at my program site agreed on the strategies used to achieve the purpose of the Academic Recovery Academy.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The Academic Recovery Academy program at my school accomplished its goals.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The resources available to support students throughout the Academic Recovery Academy were beneficial.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

The leadership team at my school site supported instructors throughout the Academic Recovery Academy program.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Please provide your email address if you would like to be included in the gift card giveaway. You will only be contacted if you are a recipient of a giveaway prize. As a reminder, your email will not be associated with answers provided in the survey.



Survey Powered By [Qualtrics](#)

Did you experience any challenges that prohibited you from reaching the program goals of the Academic Recovery Academy? Please indicate yes or no and explain.

Yes

No

Did you use specific strategies to connect to students' cultural experiences? Please indicate yes or no and explain.

Yes

No

Appendix B
Survey Results

Table B1

Total Number of Survey Participants: 46

Teachers	Instructional Coaches	Administrators	Title Not Provided
28	1	14	3

Table B2

Academic Recovery Academy School Sites

Total # of ARA Elementary & Middle School Sites (Summer 2022)	# of School Sites with at least one survey response
51	17

Table B3*Number of Survey Participants by Grade Level*

Kindergarten	1st	2nd	3rd	4th	5th	6th	7th	8th
22	30	24	22	22	20	4	8	5

*Some participants taught more than one grade level.

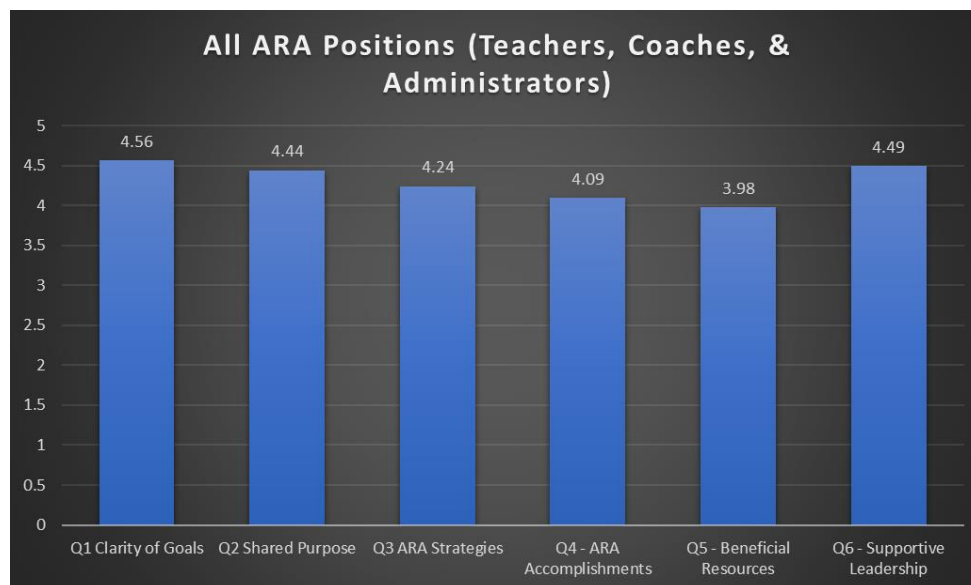
Likert Rating

(1) - Strongly Disagree (2) - Somewhat Disagree (3) - Neither Agree nor Disagree (4) -

Somewhat Agree (5) - Strongly Agree

Figure A below shows the mean of each Likert item from the survey.

The x-axis represents the specific question and the y-axis displays the scale from 1 (Strongly Disagree) to 5 (Strongly Agree)

Figure B1*ARA Survey Likert Scale Results*

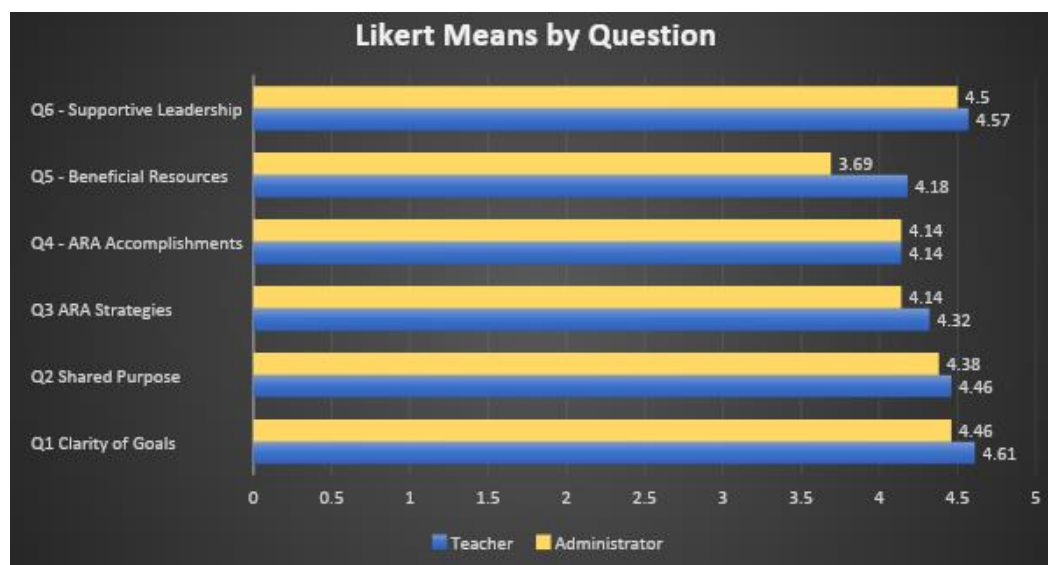
The graph below illustrates the mean of teacher (blue) and administrator (yellow) responses to each survey question.

Summary

Figure A displays the mean of the combined responses of teachers, instructional coaches, and leaders for each question. The highest mean corresponds to the survey item regarding the clarity of goals. The lowest mean corresponds to the survey item regarding beneficial resources. Figure B represents the mean of each Likert rating for each survey item and is categorized by teachers and administrators. Only one participant identified as an instructional coach.

Figure B2

ARA Survey Likert Scale Results by Position



Summary

Broadly speaking, teacher and principal experiences from ARA mostly align, with teacher responses being slightly more positive. The area where there was the most disagreement was whether or not principals received the resources they needed for the program. Teachers mostly agreed that they received the resources they needed, although this was an area of least agreement across the surveyed items.

Open-Response Codes

Questions 7 and 8 yielded direct sentiments from participants. Each recorded response is shown in the tables below and correspond to 1 of 3 themes that emerged from coding. Comments that did not make sense were removed from the list.

Question 7: Did you experience any challenges that prohibited you from reaching the program goals of the Academic Recovery Academy? Please indicate yes or no and explain.

Table B4

Open Response Survey Teacher Results – Program Operations

TEACHER PARTICIPANTS
Program Operations
<ul style="list-style-type: none"> ● The district and program leaders are not aware of where the students are at during academic recovery ● staffing and transportation ● didn't receive stipend until months late as well ● buses

- Everything was absolutely awesome!! I really enjoyed my summer school experience.
- staffing; enrichment program was never implemented because vendor never showed up

Resources

- Not enough available resources, such as Chromebooks, and manipulatives, for my students to use. Also, the instructional lessons were confusing.
- Support was awesome
- Everything was explained well during training
- We had sufficient materials
- Internet not always working properly
- Received supplies two weeks late
- Materials came in late

Student Engagement

- Students did not always attend
- Students that should have been placed in EBD were not and because of this caused disturbance in the classroom on a daily basis
- Attendance was inconsistent which impacted the effectiveness of instruction for students who didn't come everyday
- low enrollment
- Students that should have been placed in EBD were not and because of this caused disturbance in the classroom on a daily basis

Question 7 Results (Continued)**Table B5***Open Response Survey Administrator Results – Program Operations*

ADMINISTRATOR PARTICIPANTS
Program Operations
<ul style="list-style-type: none"> ● transportation was a challenge at times ● APS Transportation prevented many students without alternative transportation from attending, due to inconsistent buses and routes. ● staffing for the Power Up program ● HR/Staffing Issues; Lack of qualified services for Power Up - summer school should be half day ● Staffing
Resources
<ul style="list-style-type: none"> ● Professional Development Clarity ● late materials
Student Engagement
<ul style="list-style-type: none"> ● enrollment

Question 8: Did you use specific strategies to connect to students' cultural experiences?**Please indicate yes or no and explain.**

Table B6*Open Response Teacher Results – Culturally Relevant Strategies*

TEACHER PARTICIPANTS
Teacher Actions
<ul style="list-style-type: none"> ● Had students actively engaged in lessons and did think pair share ● To engage students, I would ask a driving question that relates to their cultural backgrounds which also sparked students interest ● SEL ● I use real life examples to help with learning ● Tying in experiences that the students understand while connecting to the scenario ● Routines ● SEL ● I used my trauma informed training to help with those students with a trauma background or having struggles regulating their emotions ● I used music, class discussions, and allowed them to share aloud about things they enjoy and have experiences to help them make connections to the world and themselves. ● Students who spoke Spanish, information was often translated to help students understand the information. Language-based activities were also performed ● Social Emotional Learning ● small group, manipulatives, modified assignments as needed

Resources
<ul style="list-style-type: none"> ● Use of culturally responsive materials
Program Structure
<ul style="list-style-type: none"> ● School based initiatives

Question 8 (Continued)

Table B7

Open Response Administrator Results – Culturally Relevant Strategies

ADMINISTRATOR PARTICIPANTS
Teacher Actions
*No administrator responses corresponded to <i>Teacher Actions</i>
Resources
<ul style="list-style-type: none"> ● Soccer in the Streets partnership ● Included literature that they could relate to
Program Structure
<ul style="list-style-type: none"> ● Focused on weekly themes and celebrated Juneteenth with activities and books ● Ensuring various staff members from all schools who attended

Appendix C

Qualtrics Graphs

Qualtrics produced a graph of all responses to each survey question. Each graph represents responses from participants whether they indicated their position title or not. Graphs for each question are below.

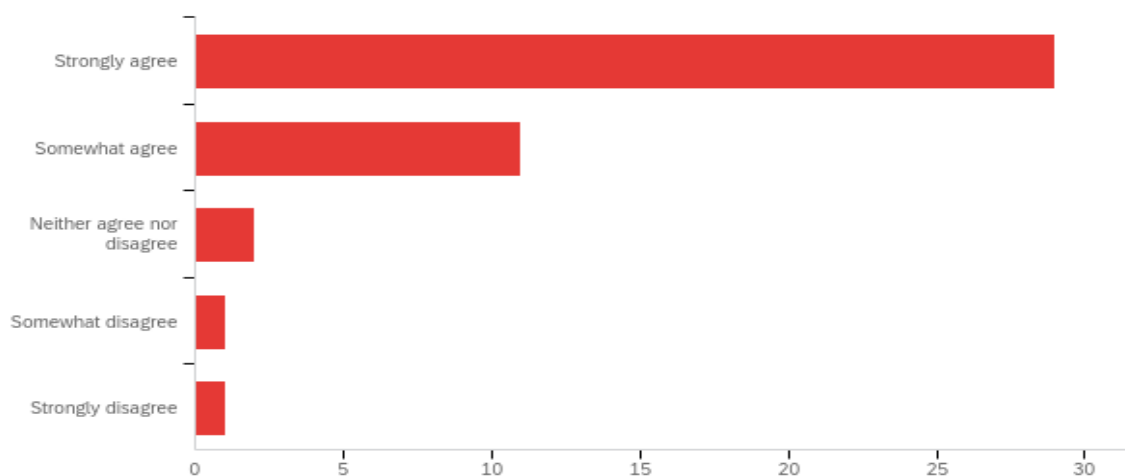
Graph Axis Labels - Questions 1-6:

The x-axis represents the total number of participants. The y-axis indicates the specific rating (Strongly disagree to Strongly agree).

Q1. I was clear of my school's goals for the Academic Recovery Academy.

Table C1

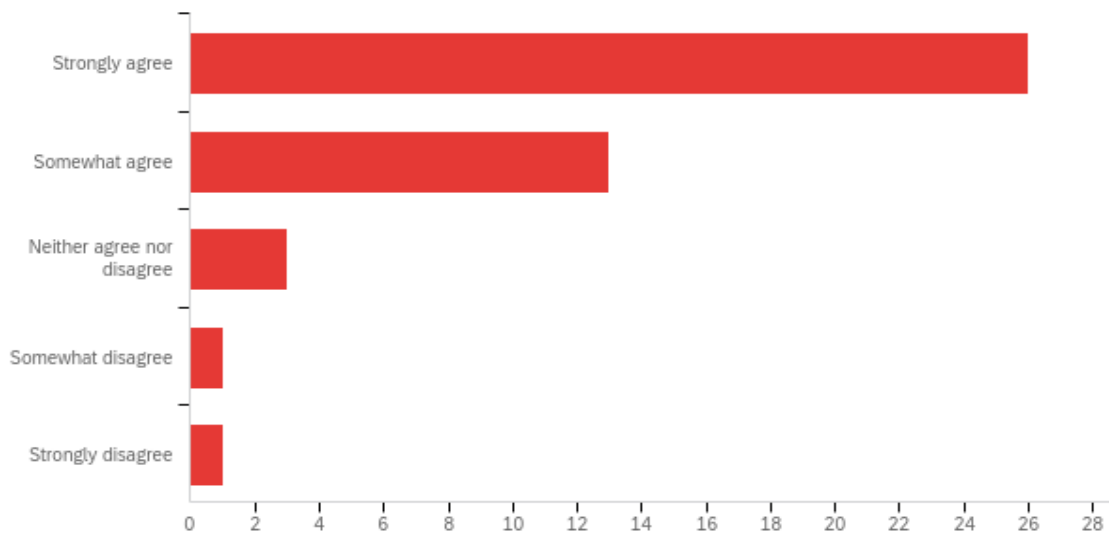
Qualtrics ARA Survey Output for ARA Goals



Q2. School leaders and teachers at my program site had a shared understanding of the purpose of the Academic Recovery Academy.

Table C2

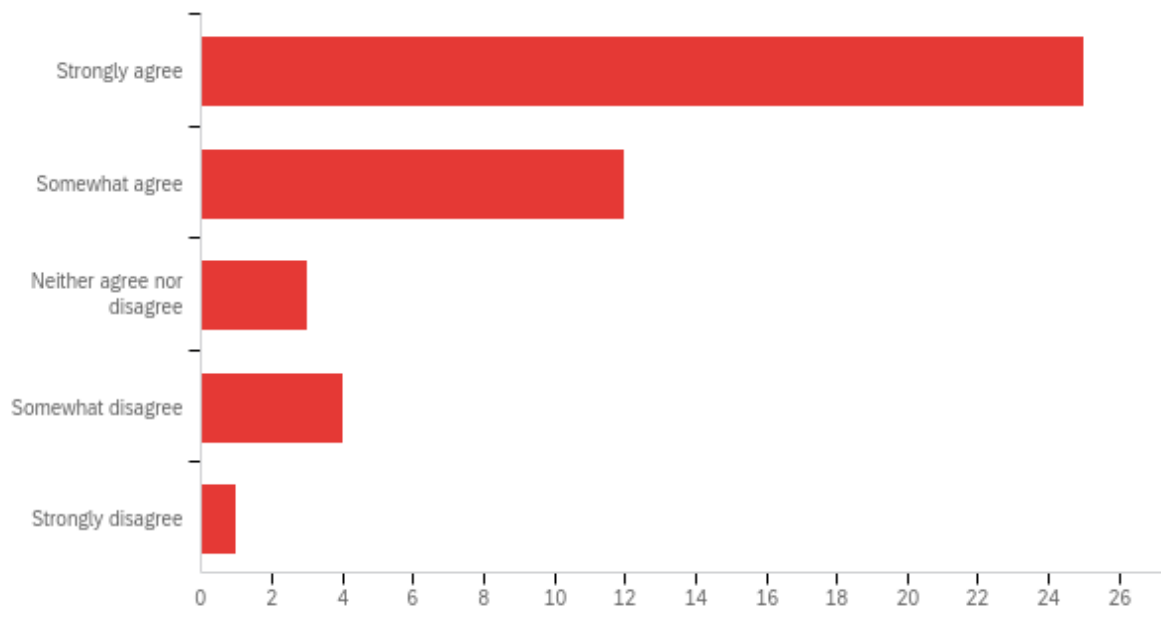
Qualtrics ARA Survey Output for ARA Shared Understanding



Q3. School leaders and teachers at my program site agreed on the strategies used to achieve the purpose of the Academic Recovery Academy.

Table C3

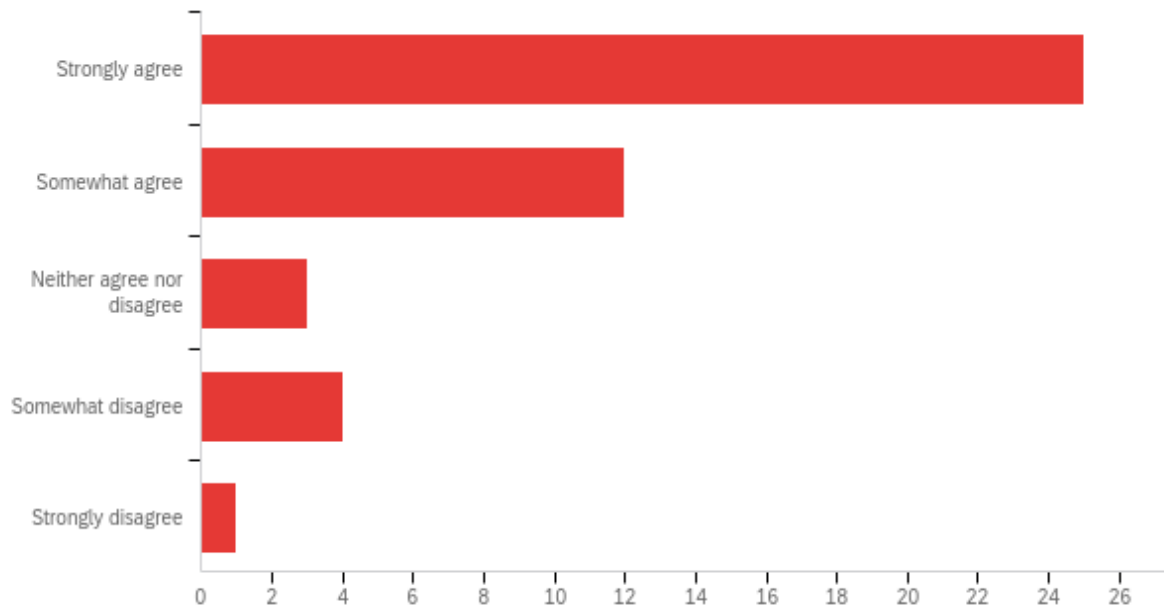
Qualtrics ARA Survey Output for Agreed ARA Strategies



Q4. The Academic Recovery Academy program at my school accomplished its goals.

Table C4

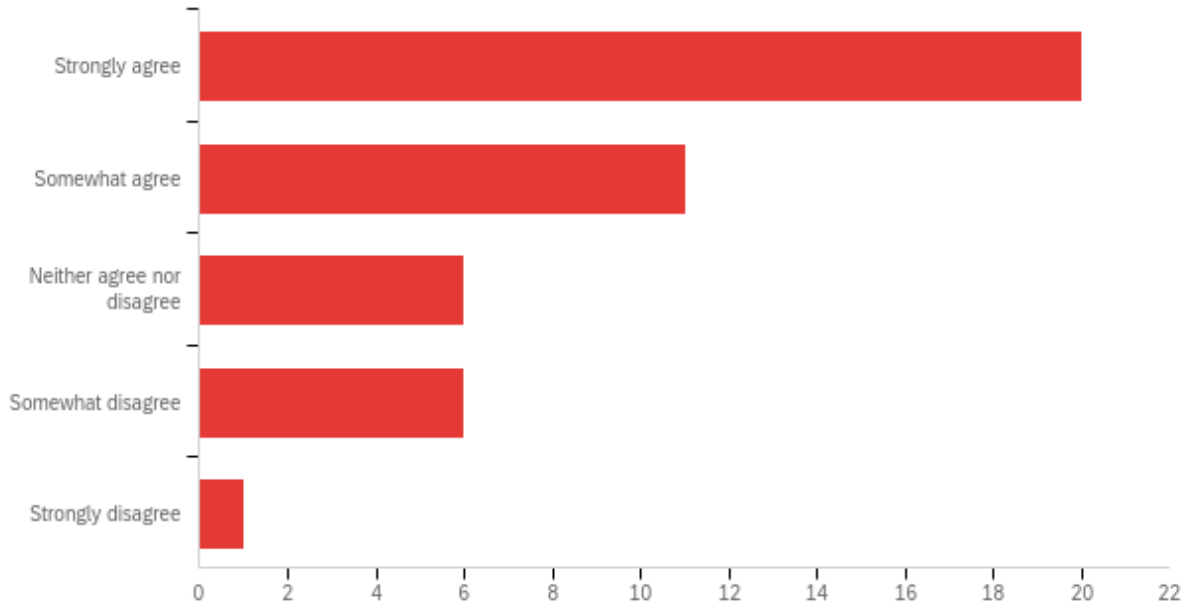
Qualtrics ARA Survey Output for Accomplished ARA Goals



Q5. The resources available to support students throughout the Academic Recovery Academy were beneficial.

Figure C5

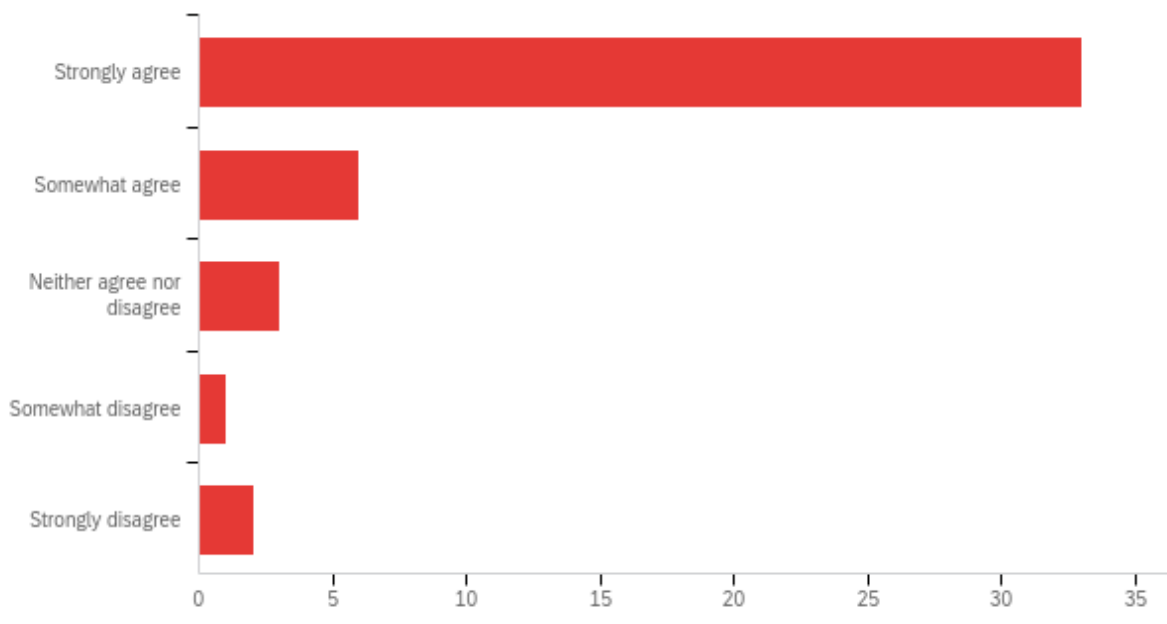
Qualtrics ARA Survey Output for Available Resources to Support Students



Q6. The leadership team at my school site supported instructors throughout the Academic Recovery Academy program.

Figure C6

Qualtrics ARA Survey Output for ARA Leadership Support



Graph Axis Labels - Questions 7 and 8:

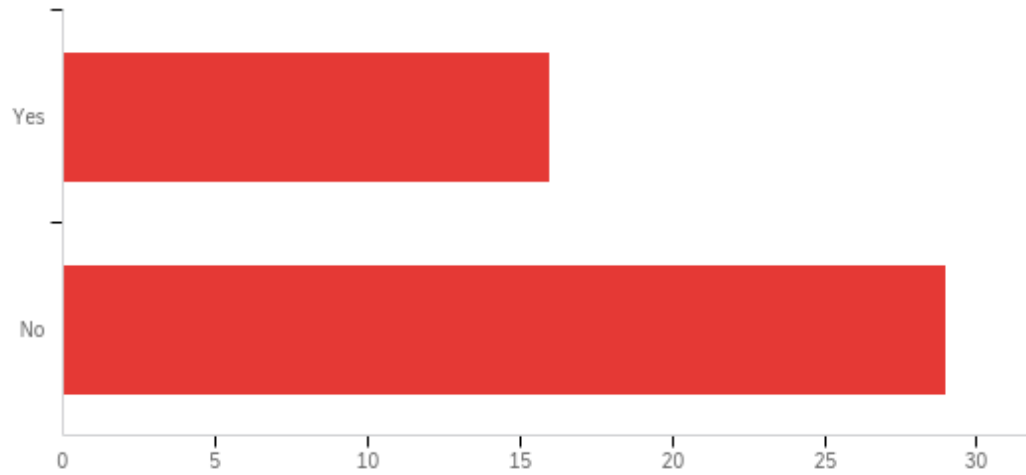
x axis: number of participants

y axis: response (yes or no)

Q7. Did you experience any challenges that prohibited you from reaching the program goals of the Academic Recovery Academy? Please indicate yes or no and explain.

Figure C7

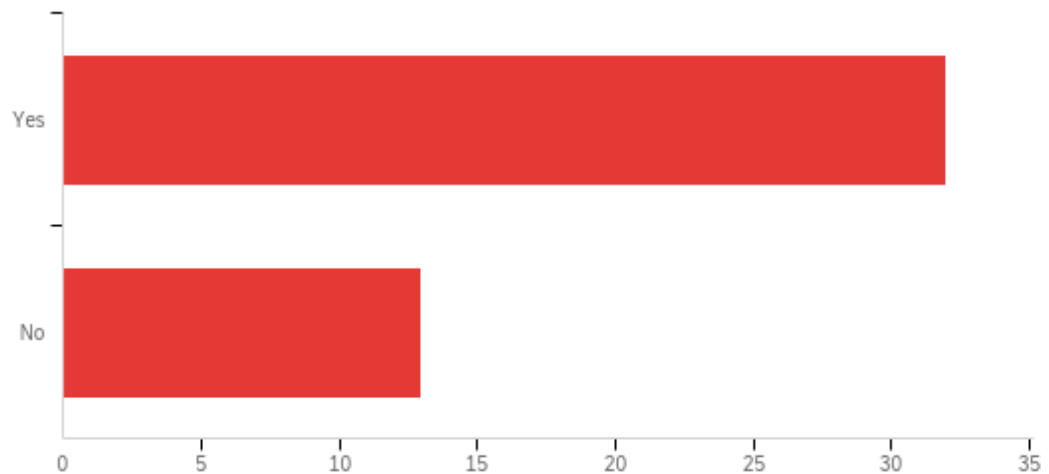
Qualtrics ARA Survey Output for Experiences Challenges



Q8. Did you use specific strategies to connect to students' cultural experiences? Please indicate yes or no and explain.

Figure C8

Qualtrics ARA Survey Output for Used Culturally Relevant Strategies



Appendix D

Massachusetts Department of Elementary and Secondary Education – Module 4

Slide 1: Root Cause Analysis of Data

What is a root cause?

“An underlying factor or condition that creates a problem and that, if addressed, would eliminate or dramatically alleviate the problem. A root cause analysis can help a group with widely varying opinions narrow the field of contributing factors until it agrees on what one(s) will yield the biggest bang for the buck if it acts on it.”

MDESE District Data Team Toolkit, Module 4, p. 208

Slide 2: Five Whys Protocol

1. Write the problem being addressed
2. Ask the group to give a reason why this is happening (the first cause)
3. Record the answer
4. Ask the group why the first cause is happening
5. Record the answer
6. Repeat five times or until reaching the root cause

DESE District Data Team Toolkit, Module 4

Slide 3: Root Cause Example

Attendance rate is poor for those struggling to graduate

1. Students aren't engaged in school
2. Parents are disengaged
3. There is a lack of family pressure to attend

Slide 4: Group Presentations

- Share your group's root cause analysis
- What actions do we need to take to respond to the identified root cause(s)?

Root Cause Analysis Worksheet

Purpose: Use this worksheet to document the results of a root cause analysis using the 5 Whys Protocol. State the problem, for example: "Student growth in math has continued to decline across the district since 2016." Document each "Why" you identify. *If the team identifies more than one "why" at any stage of analysis, you may create columns on this sheet to document multiple pathways or complete a worksheet for each pathway of analysis.* When you arrive at the root cause, state it in the "Cause" section below.

Problem:

Why?

Why?

Why?

Why?

Cause: