Design Principles in **Practice**

Summer Learning Series

K-5 SUMMER LEARNING IN WOONSOCKET, RI

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EdResearch for Action



Design Principles in Practice: K-5 Summer Learning in Woonsocket, RI

Table of Contents

I.	Executive Summary	2
II.	Background and Program Overview	4
III.	Evidence-Based Program Design	6
IV.	Data Collection Process and Learnings	14
V.	Conclusion	16
VI.	Appendix	17

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I. Executive Summary

As districts work to reduce disparities and address inequities in educational outcomes and experiences, many have turned to voluntary academic summer programming as a key strategy. Research shows that quality programs matter for students. They build connections. They offer new experiences and new ways of engaging with teachers. They provide a safe place to go during the summer.

When it comes to academic gains, however, the research is mixed. Summer programming can improve students' long-term test scores, but these gains tend to occur in programs that adhere to a key set of design principles outlined in EdResearch for Action's <u>Advancing</u> <u>Student Learning and Opportunity through Voluntary Academic Summer Learning</u> <u>Programs</u>.

District staff face difficult trade-offs as they balance their local needs against the eight design principles described in the research brief. Limitations around district capacity and personnel as well as families' demands for summer flexibility can directly conflict with calls for greater academic rigor or longer program length. While research should always be used to guide decision-making, it needs to be evaluated in relation to local values. Brighouse et. al argue that the process of using evidence to make effective decisions requires value judgments in evaluating the evidence and in determining which evidence is most important. Further, implementing processes for collecting data is critical to understanding program effectiveness and informing subsequent decisions on program improvement.

This case study details how one district – Woonsocket, Rhode Island – chose to navigate these trade-offs and the ways this has played out in program design. In examining Woonsocket's programmatic choices, three foundational values emerge. They empowered site-based leadership, prioritized program personnel, and designed for student personalization. These values guided decision-making and helped the district build a strong program that aims to balance research recommendations, program goals, and local priorities.

Empowering site-based leadership:

Woonsocket leaders knew that in order for the program to be successful, personnel at the school level needed to be actively engaged in the planning and creation of the program. Teacher autonomy and teacher agency are positively related to teachers' motivation and engagement in teaching. The district gave site-based planning teams the autonomy and built-in time needed to create project-based lessons aligned with school year standards and student interests.

^{1.} Harry Brighouse, Helen F. Ladd, Susanna Loeb, Adam Swift. (2018). Educational Goods: Values, Evidence, and Decision-Making. University of Chicago Press



Complementary perspectives and knowledge from teachers, staff, and principals ensured that the summer program was aligned with the goals and needs of schools and of their students. This site-based leadership model generated high levels of teacher buy-in and engagement throughout the program.

This value is most evident in their decisions around the research-based design principles of Administration and Academic Curriculum.

Prioritizing program personnel:

From the outset, Woonsocket made a conscious effort to prioritize the knowledge and skills of teachers and ensured positive experiences for personnel. To recruit high quality teachers and support personnel, the district implemented a series of explicit strategies designed to value and support teachers. They increased compensation, allowed for flexible work schedules, created built-in planning time, hired supporting staff and interventionists, and partnered with CBOs to provide afternoon enrichment activities.

This value is most evident in their decisions around the research-based design principles of Personnel, Enrichment Activities, and Instructors.

Designing for student personalization:

3 Traditionally, Woonsocket's summer program was for a small, targeted group of students in a single four or five week program. Woonsocket decided to redesign their program and open it up to all K-5 students. The district knew that since its students have varying needs and interests, a one-size-fits-all approach would not generate high levels of student engagement. To ensure the program could meet a variety of student schedules and to encourage high attendance, Woonsocket divided the summer into three, two-week sessions. Students could attend all six weeks of the program, or they could choose to attend just one or two sessions. The district also prioritized low Teacher-Student ratios in every classroom so that students received individualized instruction and attention.

This value is most evident in their decisions around the research-based design principles of Duration, Student Recruitment and Attendance, and Class Size.

In the following sections, we describe Woonsocket's strategies in more detail, highlighting in turn each of the research-based design principles and the decision-making on the part of Woonsocket staff that took place within each of these areas.



II. Background & Program Overview

The city of Woonsocket, RI is a small, urban community of 43,000 residents located on Rhode Island's northern border with Massachusetts. A former industrial hub in Rhode Island, and the current location of corporate headquarters for CVS, Woonsocket has experienced many of the same economic challenges plaguing small cities across the country. According to the 2020 US Census, the city has a median household income of \$44,310 and 21% of Woonsocket residents live at or below the poverty line.

Woonsocket's six elementary schools serve approximately 2,000 students, and the cohort of summer program participants largely reflects the overall K-5 student population.





Figure A

Woonsocket Student **Characteristics:** Summer Participants vs. All K-5 Students in the District



All Students Summer Participants

Figure B

STAR Testing Proficiency: Summer Participants vs. All K-5 Students in the District



In designing their summer learning program, Woonsocket used key metrics to establish three goals:

Increase academic learning: In 2022, only 12% of Woonsocket students who took the state ELA assessment were designated as Meeting Expectations and only 9% of students were Meeting Expectations on the state Math test.

Improve connection and engagement with school:

During the 2021-2022 school year, 27% of Woonsocket elementary students were identified as chronically absent, missing at least 10% of school days.

Strengthen social-emotional skills:

With a recent uptick in disciplinary incidents, Woonsocket teachers identified a need for more social-emotional skill-building.

Figure C in the appendix outlines the full theory of action used to reach these goals.

Program at a Glance

While some specific program choices differed across the six participating elementary schools, all sites shared the following features:

- Programming was offered five days per week.
- The summer was structured with three, two-week sessions
- Students could attend all six weeks of the program, or they could choose to attend just one or two sessions.

Daily Schedule:

- 9:00 AM 12:00 PM Experiential learning at their school site
- 12:00 PM 4:00 PM Enrichment activities at a local Community Based Organization (CBO)

Key Program Features:

- 498 students participated in the 2022 program
- 150 teachers taught in the program with a typical class size of 6-10 students
- Each site had a teacher site leader who coordinated activities for the summer and assumed the administrative workload
- The district provided busing for all students to their school site and from their school site to their afternoon CBO activities
- The district provided breakfast and lunch on-site each day of the program



III. Evidence-Based Program Design

Adopting and applying evidence-based practices is never a simple process, and districts are always faced with significant and challenging tradeoffs. Early in the planning process, Woonsocket relied on three key values to guide program development. They empowered site-based leadership, prioritized program personnel, and designed for student personalization. These three values influenced how Woonsocket aligned or diverged from the evidence-based design principles enumerated below. Each area of program design features a key takeaway that is a likely driver of the effectiveness of Woonsocket's program. Their decision-making process shines a light on how districts can navigate the implementation of research-based practices. EdResearch for Action's <u>Advancing Student</u> Learning and Opportunity through Voluntary Academic Summer Learning Programs examines the design principles and underlying research base in greater detail.

Value #1 Empowering Site-based Leadership

Woonsocket empowered teams of site-based coordinators and teachers to develop and execute summer program plans.

Administration and Planning Process

Research Design Principle

In addition to site administrators, large, centralized summer programs require early and comprehensive planning led by a half-time summer program director who can begin working in January, if not earlier.

Design Principle in Practice

Woonsocket made some key programwide decisions at the district level, but left the majority of summer planning up to school-based teams led by teacher summer site leaders. This decentralized approach helped make administration manageable and customizable for each school.

Planning for summer programs requires buy-in and clear coordination and engagement from central office staff and school-level personnel. In many districts, summer program decisions such as identifying student eligibility, coordinating transportation and food services, and determining academic curriculum are made by district offices to maximize efficiency and ensure a baseline of quality. In Woonsocket, the district office intentionally limited the scope of their influence in order to empower site-based teams. The district brought together school and CBO leaders for an initial planning meeting, outlining the number of weeks, timeframe and logistics such as transportation and meals.



Beyond that, they turned over student recruitment processes and academic planning to school site leaders, asking that academic curriculum be aligned to grade-level standards and plans be submitted to the district for the purposes of transparency.

Teacher site coordinators led planning teams and served as school administrators for the summer. Site coordinators were paid for 20 hours of planning time prior to the start of the summer program and took on the bulk of the administrative work for their school, including student recruitment and developing attendance-taking procedures. Site coordinators also led the planning and development of academic curriculum. While it is often most efficient to have curriculum and lesson plans determined at the district level, Woonsocket diverged from this recommendation and gave their teachers the autonomy and agency to develop project-based curriculum for their schools. These plans maintained fidelity to school year standards and district-wide goals, and were tailored to the specific needs of their students.

While the decentralized planning meant that school-based teams were empowered to make programmatic decisions, some site coordinators noted that the approach led to communication challenges across the district. For example, a small number of families received conflicting or confusing information about how to register their students for summer programming.

Academic Curriculum

Research Design Principle

High-quality curriculum materials, including lesson plans that align with school year standards and student needs, maximize the effectiveness of instruction. Summer programs are short in duration and provide little time for teachers to plan their own lessons.

Design Principle in Practice

Instead of providing teachers with a single curriculum, Woonsocket allowed teachers to design lessons that aligned with school year standards and met individual student needs and interests. This autonomy, along with built-in planning time, gave teachers flexibility to plan lessons based on their experience with students, leading to high teacher and student engagement.

Summer programs tend to provide little time for teacher planning, and providing teachers with high-quality curriculum materials can give the clarity and academic structure needed for teacher and student success. Woonsocket, however, wanted to use project-based learning over the summer to build in social-emotional components and improve student engagement. They also recognized that their teachers are trained professionals with unique insights into what works best for their students. Teachers were empowered to design summer lessons that align to school year standards while providing an alternative to traditional school year instruction. The district paid each summer teacher for six hours of planning time before the start of the program, and three hours of additional planning time per week during the program.



Asking teachers to create a whole new curriculum for summer was a gamble, as it could create undue stress. Woonsocket's teachers were energized by the autonomy and flexibility they were given to create engaging lessons, and 89% agreed that the curriculum was engaging for students. One teacher noted that the autonomy "allowed teachers to choose lessons and teaching styles to suit individual students in their classrooms." Another teacher commented: "I had so much fun having more freedom to plan educational experiences learnina and aames." Additionally, 93% of families agreed that the curriculum was engaging, and 95% agreed that their student was better prepared for the next school year after attending the summer program.

Project Based Learning In Action

One site focused on immersive STEAM lessons that gave students the opportunity to explore contemporary topics and learn technical skills. One specific lesson was roller coaster construction. Student teams collaborated on roller coaster design and construction and tested the physics of force and motion with marbles. Teachers also provided explicit support on how to communicate in teams and how students should document reflections about their experiences, lessons learned, and takeaways for future work. This lesson integrated standards-aligned writina opportunities with science lessons on force and motion, all while providing students with the critical opportunity to practice teamwork, collaboration, and effective communication.

Value #2 Prioritizing Program Personnel

Woonsocket invested significant financial resources in their teachers and support personnel and saw high levels of engagement and buy-in from staff.

Program Personnel

Research Design Principle

Certified teachers with content knowledge and grade-level experience enhance instructional quality in academic classes. Specialized support personnel can enhance learning and provide greater continuity across the school year for students with specialized needs.

Design Principle in Practice

Woonsocket made it a priority to hire certified teachers with content and gradelevel expertise and ensured positive experiences with increased compensation, flexible schedules, and the hiring of specialized support staff.

While many summer programs across the country <u>struggled to hire adequate staff</u>, Woonsocket had more than enough teachers applying for summer programs. The district used money from the Elementary and Secondary School Emergency Relief (ESSER) Fund to ensure they could recruit and retain the necessary staff.



Leaning on their value of prioritizing program personnel, the district offered increased pay, flexible work schedules, and hired specialized staff in addition to academic teachers.

Increased compensation:

The district doubled the typical summer pay rate for teachers, from \$30 per hour to \$60 per hour, to attract teachers and demonstrate the value of their summer work. When asked about their decision to teach in the summer, many teachers noted the pay increase as a main driver.

Flexible commitment:

Because the program was offered to students in three, two-week sessions, the district gave teachers the flexibility to teach one, two, or all three sessions throughout the summer. Teachers taught summer programs in their same school year building and many taught their school year grade level, continuing on with the same students they taught during the school year. Teachers reported that this continuity eased the transition from the end of the school year into the start of summer.

Hiring specialized support staff:

To support students' social-emotional needs and allow teachers to fully engage in academic instruction, the district employed a variety of support professionals. Each classroom was assigned one or two paraprofessionals and all sites employed academic interventionists throughout the summer. District social workers provided social-emotional lessons and regular check-ins for students, and behavior specialists added de-escalation support. In post-program teacher surveys, 100% of teachers agreed that the procedure for handling student discipline challenges was effective.

These personnel decisions – increasing pay, providing flexible work schedules, and hiring specialized staff – paid dividends for teacher recruitment and satisfaction. Ninety-six percent of teachers reported that the program was well-managed and well-organized, while 100% of teachers agreed that teachers enjoy teaching in the summer program. With current national attention placed on teacher recruitment, wellbeing, satisfaction, and burnout, Woonsocket intentionally invested significant resources into their summer teachers to ensure a positive experience.

Enrichment Activities + Instructors

Research Design Principle

Engaging enrichment activities that take place alongside academics can help fill the "opportunity gap" and have been shown to reinforce regular attendance.

Design Principle in Practice

Woonsocket engaged CBOs in the planning process early on and leveraged their resources to create a program that offered all students high-quality enrichment opportunities in addition to academics.



Successful full-day programs tend to include academics as well as engaging enrichment activities and field trips. By partnering with local community based organizations (CBOs), Woonsocket was able to offer a wide range of high-quality enrichment activities for students. While individual schools were responsible for the bulk of summer planning, district leaders still oversaw some district-wide planning components. Early in the planning process, the district brought together leaders from participating CBOs and schools, creating a space for them to build connections.

Some CBOs, such as the local YMCA and Boys and Girls Club, offered a variety of activities that students could participate in every afternoon, while others offered more targeted activities such as art or music. Families could choose which CBO enrichment activities they wanted their students to attend. A few CBO enrichment programs were co-located within schools, but for many students the district provided transportation from school sites to CBO sites across the city.

It can be easy for CBOs and districts to be disconnected from one another, or run parallel summer programs. Woonsocket's approach was intentionally inclusive of local CBOs in order to leverage their expertise and resources for students. This meant that the district also alleviated the burden of enrichment programming from academic teachers, so that they could remain focused on providing excellent instruction.

Value #3 Designing for Student Personalization

Woonsocket designed their program to incorporate high levels of student personalization in an effort to support academic learning and increase student engagement.

Program Duration

Research Design Principle

Programs that last at least five weeks and include at least three hours of academic instruction per day have been demonstrated to generate significant and lasting effects on student achievement. Optimally, programs will be offered to students for multiple summers.

Design Principle in Practice

Opting not to require participation in a single five or six week program, Woonsocket's model of three two-week sessions allowed them to engage students who otherwise might not have been able to attend a longer program.

Students attending summer academic programs typically need at least 20 days of instruction in order to demonstrate academic gains. However, district leaders in Woonsocket worried that asking students to commit to a program of five or six



consecutive weeks would discourage some students from enrolling at all. Because of this, the district chose to diverge from the design principle on program duration and offer three, two-week sessions. Students could sign up for one, two, or all three sessions, thereby offering 28 days total and balancing the goal of academic improvement with the goal of supporting as many students as possible to build connections with their school, peers, and teachers during the summer.

This flexible registration structure led to high enrollment and low attrition across the three sessions, with almost 500 students (about 25% of the total students eligible to participate) attending the program. While one-third of those students attended a single two-week session, 40% of summer students (approximately 200) ultimately attended at least 20 days (4 weeks).

Student Recruitment and Attendance

Research Design Principle

Attendance is strongest when programs communicate the benefits of high attendance during recruiting, establish an enrollment deadline, and create an engaging site climate with positive adultstudent relationships.

Design Principle in Practice

Schools leveraged existing modes of communication to recruit students, provided clear behavior expectations for students, and created engaging site climates that focused on project-based learning and positive relationships.

Recruitment:

Student recruitment happened primarily at the school level. Schools employed a variety of methods that their families were accustomed to, and they tailored efforts to align with families' needs. Efforts used across multiple sites include:

- Sending flyers home in student backpacks
- Posting in their family engagement app ClassDojo
- Online sign up form sent out to parents
- Hosting in-person sign up events
- Posting on school-sanctioned social media platforms, such as the Parent-Teacher Organization Facebook page

These advertisements accurately explained the program options, requirements, and features, including session themes, the opportunity to be in a class with a teacher they know, enrollment flexibility, and enrichment offerings at CBOs. Teachers also personally reached out to students and families who they identified as likely to benefit from the summer program.

Clear expectation setting:

Two weeks after signing up, families received information regarding the schedule, enrichment options, and logistics such as transportation routes and the lunch menu.



Included with this information were clear expectations around attendance and behavior conduct. By signing up for the program, students were committing to attend and adhere to the expectations of the program. Woonsocket site leaders credit this early expectation setting with high student attendance rates and high engagement.

Engaging site climate:

Once the program started, Woonsocket implemented intentional practices to ensure high attendance. Project-based lessons were designed to provide a fun alternative to traditional school year instruction and give students the space to work in teams and follow their own strands of inquiry. The program also integrated behavior specialists and social workers to work with struggling students and ensure the school had the resources to student meet needs. Additionally, by tracking daily attendance, site leaders could easily identify which students were absent and place calls home.

Ninety-eight percent of teachers agreed that students enjoyed the summer programming, and 98% of families agreed that they would recommend the summer program to other families in the district.

Summer Attendance by the Numbers of eligible K-5 students 25% attended the program of students attended 23% 1 session of students attended 25% 2 sessions of students attended 52% 3 sessions Session 1: 423 students • 75% Average Daily Attendance Session 2: 420 students • 72% Average Daily Attendance Session 3: 337 students

• 67% Average Daily Attendance

Class Size

Research Design Principle

Small classes capped at 15 students per teacher support stronger individualized instruction and help build relationships in academic and enrichment periods.

Design Principle in Practice

Low teacher-student ratios combined with interventionists and support staff led to more personalized instruction and learning for students.

Summer programs with smaller class sizes tend to be more effective at meeting the needs of both low and high performing students. In Woonsocket individual class size varied by



school and by grade, but classes typically averaged between 6-12 students with at least one teacher and one paraprofessional per classroom, and interventionists offering push-in and pull-out support.

The district prioritized low teacher-student ratios and knew that significant financial resources would be required to provide the personnel needed to meet the needs of students. This structure helped create the connections that the district was aiming for by facilitating academic instruction and fostering relationships.

One hundred percent of teachers agreed that the summer program helped students build relationships with peers and teachers. Families also saw the benefit of small classes, with 98% of families agreeing that the program helped students build positive relationships with their peers and 95% agreeing that it helped students build positive relationships with adults. A number of teachers specifically called out the importance of class size in their survey responses.

One Literacy Interventionist stated: "The ability to work with students in small groups without distractions had a powerful effect on student learning. Lessons were intensive but also fun and students were highly motivated by their ability to succeed. It was an extremely rewarding experience for both teacher and students."

One teacher also noted the importance of the co-instructor model: "Co-teaching with another certified teacher was wonderful and students were able to get more instruction."



IV. Data Collection Process and Learnings

While Woonsocket first launched their summer program in 2021, they hoped to get a deeper sense of program outcomes during the second summer in 2022. Beginning in the spring of 2022, Woonsocket district leaders worked closely with a team from EdResearch for Action to design a process for data collection and program analysis that would provide insight into how the program aligned with research recommendations and the district's original goals. The team from EdResearch for Action helped the district organize their data collection around four key areas: demographics of summer participants, summer attendance patterns, academic outcomes, and teacher and family experiences.

Demographics of Summer Participants:

District leaders wanted to understand if students attending the summer program were those who might benefit most from the additional academic support and school engagement opportunities. Linking studentlevel information with summer enrollment rosters illuminated that summer participants mostly reflected the district population, with slightly lower rates of multilingual learners (MLLs), economically disadvantaged students, and chronically absent students.

Attendance Patterns:

Site-based daily attendance records connected to student-level information allowed the district to see how attendance varied across different student subaroups. This analysis found that over 95% of students who were expected to attend actually participated. They also found that students with lower school year attendance and academic performance attended fewer days of the summer program compared to their counterparts with higher school year attendance and test scores. Because of this, district leaders plan to target these students next summer to improve summer persistence.

Key Learnings from Data Collection

- Summer participants mostly reflected the district population
- Over 95% of students who were expected to attend actually participated
- Summer participation had a statistically significant effect on math scores for students in grades K and 1
- MLL students who attended the summer program did better on fall test scores than MLL students who did not attend the program
- Over 95% of both teachers and families agreed that the program had positive social-emotional outcomes for students
- Woonsocket plans to begin recruitment earlier to provide more opportunity for families to plan ahead and enroll their students

Academic Outcomes:

While improved academic performance was not the only goal of the summer program, Woonsocket did prioritize academic outcomes as one of many measures that could be used



to assess program effectiveness. The current research on summer programming shows small but positive academic impacts on average, likely because summer programs are relatively short interventions. It is therefore hard to detect academic effects on exams that test a wider breadth of knowledge than the focus of the summer content. Using Math and Reading STAR diagnostic scores from the Spring and Fall connected to both student characteristics and summer attendance, the district could examine how academic performance varied across student subgroups.

On average, students across all grades and subjects saw decreased scores from Spring to Fall. However, summer participation had a statistically significant effect on math scores for students in grades K and 1. Summer attendees in grades K and 1 scored higher in the Fall than their peers who did not attend, when controlling for student characteristics and grade level. The same methods showed no effect on grades 2-5 math scores or for any grades on reading scores. For MLL students, those who attended the summer did better academically than MLL students who did not. The Spring-Fall decrease in scores among MLL attendees was smaller on average than the Spring-Fall decrease in scores among MLL non-attendees. While these analyses of academic outcomes should not be considered causal estimates of differences in the efficacy of summer school participation across subgroups of students, they provide preliminary evidence for the purposes of continuous improvement.

Teacher and Family Experiences:

Prior research has found that participation in summer programs likely has non-academic benefits as well, and is associated with increased student engagement and improved social-emotional outcomes. To better understand how the program may have benefited students along non-academic dimensions, Woonsocket opted to administer surveys to participating families and educators. The survey results found that over 95% of both teachers and families agreed that the program had positive social-emotional outcomes for students. Mainly, it helped students build relationships with peers, develop relationships with teachers, and improve their communication skills.

Given the findings from the four buckets of data analysis, the district has identified several areas for improvement next year and become better consumers of their own data. In particular, they realized that recruitment efforts were not as targeted and intentional as they had hoped. They plan to begin recruitment earlier, and believe that this will provide a great opportunity for families to plan ahead, enroll their students, and ultimately lead to a larger impact. They will also collect data on this program in future summers to understand the impact of participation in multiple summers, and what they can continue to improve upon to have a long-term impact on student outcomes.



V. Conclusion

There is evidence that many types of summer programs can be effective at improving academic and non-academic outcomes for students. However, not all programs result in improved outcomes, and district and school leaders must decide how best to invest limited resources to meet goals for summer programming. To provide critical opportunities for academic improvement, engagement, and relationship-building, Woonsocket intentionally designed, and invested heavily in, their summer programming.

They examined research-based recommendations and evaluated these recommendations through the lens of three foundational values: empowering site-based leadership, prioritizing program personnel, and designing for student personalization. The process of how Woonsocket used their values to balance research recommendations with their local priorities can serve as a model for other districts designing and implementing evidencealigned programming.

For More Information

This case study of design principles in practice is one document in a series aimed at providing K-12 education decision-makers and advocates with an evidence base to ground discussions about how to best serve students during and following the novel coronavirus pandemic.

The EdResearch for Action initiative is a joint project of the Annenberg Institute at Brown University and Results for America.

<u>Click here</u> to learn more about the EdResearch for Action Project and view the set of COVID-19 response and recovery topic areas and practitioner-generated questions. To receive updates and the latest briefs, <u>sign up here</u>.







VI. Appendix

Goals	Activities	Intermediate Impacts
Increase academic learning In 2021, only 13% of Woonsocket students who took the state ELA assessment were designated as Proficient and only 5% of students scored Proficient on the state Math.	To stimulate academic inquiry and provide an alternative method of instruction compared to traditional school year methods, Woonsocket's summer learning program focused on project-based learning, aligned to school year curriculum standards.	Students show increased knowledge of academic content
Improve school engagement During the 2021-2022 school year, 27% of Woonsocket elementary students were identified as chronically absent, missing at least 10% of school days.	The model of project-based learning, structured across the summer in thematic units, provided a way for students to get excited about learning in-person with teachers and peers. With project-based learning, students could develop and follow their own strands of inquiry while working in small groups.	Students are re-engaged in school Students report positive experiences with school
Strengthen social-emotional skills With a recent uptick in disciplinary infractions, Woonsocket teachers identified a need for more social- emotional skill-building.	A key component of project-based learning is developing the ability to work as part of a team. In the summer program's project-based learning model students ask questions, investigate hypotheses, experiment, and solve problems. They assume responsibility, serve as productive members of a team, make group decisions, and take time to reflect on the process. This model, combined with low teacher-student ratios and support from social workers and interventionists, meant that students could work on effective communication, reflection, and peer engagement.	Students have improved social relationships with teachers and each other



Figure D: Research Design Principles and Design Principles in Practice in Woonsocket

Administration and Planning Process				
In addition to site administrators, large, centralized summer programs require early and comprehensive planning led by a half-time summer program director who can begin working in January, if not earlier.	Woonsocket made some key program-wide decisions at the district level, but left the majority of summer planning up to school-based teams led by teacher summer site leaders. This decentralized approach helped make administration manageable and customizable for each school.			
Academic Curriculum				
High-quality curriculum materials, including lesson plans that align with school year standards and student needs, maximize the effectiveness of instruction. Summer programs are short in duration and provide little time for teachers to plan their own lessons.	Instead of providing teachers with a single curriculum, Woonsocket allowed teachers to design lessons that aligned with school year standards and met individual student needs and interests. This autonomy, along with built-in planning time, gave teachers flexibility to plan lessons based on their experience with students, leading to high teacher and student engagement.			
Program Personnel				
Certified teachers with content knowledge and grade-level experience enhance instructional quality in academic classes. Specialized support personnel can enhance learning and provide greater continuity across the school year for students with specialized needs.	Woonsocket made it a priority to hire certified teachers with content and grade-level expertise and ensured positive experiences with increased compensation, flexible schedules, and the hiring of specialized support staff.			
Enrichment Activities + Instructors				
Engaging enrichment activities that take place alongside academics can help fill the "opportunity gap" and have been shown to reinforce regular attendance.	Woonsocket engaged CBOs in the planning process early on and leveraged their resources to create a program that offered all students high-quality enrichment opportunities in addition to academics.			
Program Duration				
Programs that last at least five weeks and include at least three hours of academic instruction per day have been demonstrated to generate significant and lasting effects on student achievement. Optimally, programs will be offered to students for multiple summers.	Opting not to require participation in a single five or six week program, Woonsocket's model of three two-week sessions allowed them to engage students who otherwise might not have been able to attend a longer program.			
Student Recruitment and Attendance				
Attendance is strongest when programs communicate the benefits of high attendance during recruiting, establish an enrollment deadline, and create an engaging site climate with positive adult-student relationships.	Schools leveraged existing modes of communication to recruit students, provided clear behavior expectations for students, and created engaging site climates that focused on project- based learning and positive relationships.			
Class Size				
Small classes capped at 15 students per teacher support stronger individualized instruction and help build relationships in academic and enrichment periods.	Low teacher-student ratios combined with interventionists and support staff led to more personalized instruction and learning for students.			

