# EFFECTIVE PROGRAM DESIGN FOR ELEMENTARY SUMMER LEARNING PROGRAMS

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In the following report, Hanover Research discusses the impact of summer learning programs, features of effective summer learning programs, and strategies for evaluating summer learning programs.

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# EXECUTIVE SUMMARY

## INTRODUCTION

A growing number of districts across the country offer summer learning programs to combat the documented "summer slide" in cognitive skills (especially reading), provide students with enrichment activities, and allow motivated students the opportunity to explore new subjects. [1] In this report, Hanover Research (Hanover) examines effective practices for elementary summer learning programs. The report synthesizes the literature from empirical studies and reputable organizations to investigate the impact of summer learning programs, features of effective elementary summer learning programs, and strategies for evaluating summer learning programs. The report includes the following two sections:

- **Section I: The Impact of Summer Learning Programs** examines the effects of summer learning programs on student outcomes, summer learning loss, and the achievement gap.

- **Section II: Best Practices for Summer Learning Programs in Grades K-3** discusses research-based features of effective elementary summer learning programs, as well as strategies for evaluating summer learning programs.

## RECOMMENDATIONS

*Based on our analysis of the literature, Hanover recommends that districts:*

- Include three to four hours of academic instruction per day in summer learning programs, including at least two hours of literacy instruction and 60 to 90 minutes of mathematics instruction;

- Provide students with academic learning experiences that are engaging, hands-on, and incorporate project-based learning;

- Consider partnering with community organizations to increase the variety of offered enrichment activities; and

- Create a plan during the program planning process for collecting and analyzing data to evaluate the implementation and outcomes of the summer learning program.

## KEY FINDINGS

- **Research indicates that summer learning programs have a positive impact on the academic outcomes of students in elementary school by alleviating summer learning losses and producing improvements in academic achievement**. Because summer learning loss, where students lose skills, disproportionately affects low-income students, researchers argue that summer learning programs can reduce the

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[1] McCombs, J.S. et al. "Making Summer Count: How Summer Programs Can Boost Children's Learning." *Education Digest: Essential Readings Condensed for Quick Review*, 77:6, February 1, 2012. pp. 17–18. Accessed via EbscoHost.

achievement gap between students of different socioeconomic groups by mitigating the socioeconomic differences in summer learning loss.

- o Summer learning programs provide a variety of benefits to students from traditionally underrepresented racial and ethnic groups. Hanover was unable to identify any published empirical studies on the impact of summer learning programs on reducing achievement gaps for racial groups not connected to socioeconomic differences.

- ■ **Effective summer learning programs use a high-quality curriculum and ensure that the curriculum and instructional activities align with curricular standards and school-year activities**. Researchers suggest districts use a commercially-available curriculum, as creating one can be challenging and time-intensive. Additional practices of effective summer learning curricula and instruction include providing teachers with materials for differentiating instruction and standardizing the curriculum and curricular materials across district sites.

- ■ **Successful summer learning programs feature small class sizes, low teacher-to-student ratios, and experienced, trained teachers**. Specific recommendations for maximum class size vary from 10-20 students per class, while recommendations for adult-to-student ratios vary from a 1:5 adult-to-student ratio with one lead teacher and one teaching assistant per class, or two to four adults per classroom. Districts should develop criteria for recruiting and hiring high-quality teachers for summer learning programs and provide teachers with training and support for implementing the summer learning curriculum.

- ■ **Summer learning programs should engage students through active, hands-on learning and offer a wide variety of enrichment activities**. Effective summer learning programs provide instruction that actively engages students in the material through hands-on learning activities that spark students' interest and have real-world applications. Districts can provide students with engaging experiences through enrichment activities and project-based learning. Experts recommend that summer learning programs integrate academic and enrichment experiences to increase student engagement and hands-on learning, and many districts partner with community-based organizations (CBOs) to offer a greater variety of enrichment activities.

- ■ **Experts emphasize the importance of maximizing academic time on task each day for improving student outcomes in summer learning programs**. Experts recommend a minimum program duration of five to six weeks of full-day programming, or at least 70 academic hours. Further recommendations include providing students with three to four hours of academic instruction per day, including 60 to 90 minutes of mathematics instruction and two hours of literacy instruction. Districts should work to ensure that the allocated instructional time reflects actual academic learning time.

- ■ **Experts recommend that districts evaluate their summer learning program to clarify program goals, identify necessary supports, and determine program strengths and development areas**. Evaluating summer learning programs requires districts to define the program and its goals, establish research questions and determine the evaluation

design, select data sources, and collect and analyze the data. Districts can use the results of the evaluation to improve program quality.

# SECTION I: THE IMPACT OF SUMMER LEARNING PROGRAMS

This section examines the effects of summer learning programs on student outcomes, summer learning loss, and the achievement gap.

## EFFECTS OF SUMMER LEARNING PROGRAMS ON STUDENT OUTCOMES

**Research indicates that summer learning programs have a positive impact on the academic outcomes of students in elementary school.**[2] Specifically, studies find that summer learning programs can alleviate summer learning losses and produce improvements in academic achievement. [3] In addition to these benefits, "longitudinal studies conclude that the effects of summer learning programs endure for at least two years after the student has engaged in the summer program."[4] Studies also find that targeted summer learning programs can improve the social-emotional skills of elementary students at risk for emotional and behavioral disorders.[5]

*Studies find that summer learning programs can alleviate summer learning losses and produce improvements in academic achievement.*

**Recent high-quality studies highlight the positive academic impacts of summer learning for elementary students.** For example, a randomized controlled trial of summer learning programs in five urban districts conducted by the RAND Corporation and sponsored by the Wallace Foundation's National Summer Learning Project found that summer learning programs had positive effects on the achievement of Grade 3 students. The researchers found that overall, students in the treatment group (i.e., those enrolled in the summer learning program) experienced a statistically significant increase in their math achievement, where the standardized average effect of offering the program was 0.08.[6] The study also highlighted the importance of attendance, finding that stronger attendance was associated with larger impacts. The researchers found that students who attended a five- to six-week summer learning program for 20 or more days in 2013 achieved higher on state math assessments

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[2] [1] Ibid., p. 49. [2] Augustine, C.H., J.S. McCombs, H.L. Schwartz, et al. "Getting to Work on Summer Learning: Recommended Practices for Success." RAND Corporation, 2013. p. 4. https://www.wallacefoundation.org/knowledge-center/Documents/Getting-to-Work-on-Summer-Learning-Recommended-Practices-for-Success.pdf [3] "NCASE Summer Learning Brief." National Center on Afterschool and Summer Enrichment, 2016. p. 1. http://www.summerlearning.org/wp-content/uploads/pdf/ncase-summer-learning-brief.pdf

[3] McCombs et al., "Making Summer Count," Op. cit., p. 49.

[4] Ibid.

[5] Zeng, S., G.J.. Benner, and R.M.. Silva. "Effects of a Summer Learning Program for Students at Risk for Emotional and Behavioral Disorders." *Education & Treatment of Children*, 39:4, November 2016. Accessed via EbscoHost.

[6] Augustine, C.H., J.S. McCombs, J.F. Pane, et al. "Learning from Summer: Effects of Voluntary Summer Learning Programs on Low-Income Youth." RAND Corporation, 2016. pp. xii–xiv. https://www.rand.org/content/dam/rand/pubs/research_reports/RR1500/RR1557/RAND_RR1557.pdf

than control group students, and these results were statistically significant and held through the next school year. In 2014, students with high attendance rates had statistically significant higher achievement than the control group in mathematics (0.11) and language arts (0.08), including on state assessments in the following spring (0.14 and 0.09, respectively). The researchers note that participation following the second summer of the program "was equivalent to 20 to 25 percent of a year's learning in math and ELA."[7] Additionally, the researchers found that academic time on task was associated with greater impacts for program participants compared to the control group.[8]

Additionally, a 2013 meta-analysis of summer reading interventions that synthesized the results of 35 experimental or quasi-experimental studies (and 41 reading interventions) found that summer reading programs have a positive impact on the reading skills of students in Grades K-8.[9] Specifically, the researchers found that combined, classroom-based and home-based programs had statistically significant impacts on students' reading achievement, reading comprehension, and fluency and decoding, with effect sizes as presented in Figure 1.1, below.

**Figure 1.1: Effect Sizes for Summer Reading Program Outcomes**

| OUTCOME | EFFECT SIZE |
|---|---|
| Total reading achievement | 0.10 |
| Reading comprehension total | 0.12 |
| Reading comprehension only | 0.23 |
| Fluency and decoding combined | 0.24 |

Source: *Review of Educational Research*[10]

Alternatively, effects of classroom-based interventions alone were only statistically significant for the outcome variables of total reading achievement, reading comprehension total, and reading comprehension only.[11]

## SUMMER LEARNING LOSS

**Researchers often discuss the benefits of summer learning programs in relation to summer learning loss**.[12] Summer learning loss, where students either maintain achievement levels or lose skills, contributes to the achievement gap as it disproportionately affects low-income students. [13] According to researchers with the RAND Corporation:[14]

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[7] Ibid., p. 64.

[8] Ibid., p. 67.

[9] Kim, J.S. and D.M. Quinn. "The Effects of Summer Reading on Low-Income Children's Literacy Achievement from Kindergarten to Grade 8: A Meta-Analysis of Classroom and Home Interventions." *Review of Educational Research*, 83:3, 2013. Accessed via SagePub.

[10] Ibid., p. 409.

[11] Ibid.

[12] [1] McCombs et al., "Making Summer Count," Op. cit., p. 24. [2] "NCASE Summer Learning Brief," Op. cit., p. 1.

[13] [1] "Summer by the Numbers." National Summer Learning Association. p. 1. http://www.summerlearning.org/wp-content/uploads/pdf/Summer-ByThe-Numbers_updated-03.20.pdf [2] McCombs et al., "Making Summer Count," Op. cit., p. 24. [3] "NCASE Summer Learning Brief," Op. cit., p. 1.

[14] McCombs et al., "Making Summer Count," Op. cit., p. 24.

"While their higher-income peers, on average, post gains in reading, low-income students show losses at the end of the summer. Most disturbing is that it appears that summer learning loss is cumulative and that, over time, these periods of differential learning rates between low-income and higher-income students contribute substantially to the achievement gap."

### CLOSING THE ACHIEVEMENT GAP

Compared to their peers from higher-income backgrounds, low-income students also experience few enrichment activities, such as cultural and athletic activities, over the summer.[15] Indeed, some research indicates that summer learning loss during elementary school alone contributes to at least half of the reading achievement gap students experience in Grade 9.[16]

**Thus, research suggests that summer learning programs can reduce the achievement gap between students of different socioeconomic groups by providing high-quality academic and enrichment experiences that mitigate the achievement gap from socioeconomic differences in summer learning loss.**[17] The RAND researchers emphasize that "summer learning programs have the potential to mitigate the academic achievement gap between students from low-income and higher-income households."[18]

> *Research suggests that summer learning programs can reduce the achievement gap between students of different socioeconomic groups by providing high-quality academic and enrichment experiences.*

**Notably, studies on the impact of summer learning programs on the achievement gap focus almost exclusively on the socioeconomic achievement gap and reducing gaps between students from low-income and higher-income backgrounds**.[19] Hanover was unable to identify any published empirical studies on the impact of summer learning programs on reducing achievement gaps for racial groups not connected to socioeconomic differences.

Despite research that focuses only on the socioeconomic achievement gap**, summer learning programs provide a variety of benefits to students from traditionally underrepresented racial and ethnic groups**. The Afterschool Alliance, an organization that advocates for quality afterschool and summer programs, explains that "The need for these afterschool and summer learning programs is especially vital in African-American and Latino communities,

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[15] Augustine, McCombs, Pane, et al., Op. cit., p. ix.

[16] "NCASE Summer Learning Brief," Op. cit., p. 1.

[17] [1] Augustine, McCombs, Schwartz, et al., Op. cit., p. 4. [2] Augustine, McCombs, Pane, et al., Op. cit., p. ix.

[18] Augustine, McCombs, Pane, et al., Op. cit., p. ix.

[19] For example, see: [1] Alexander, K.L., D.R. Entwisle, and L.S. Olson. "Lasting Consequences of the Summer Learning Gap." *American Sociological Review*, 72:2, 2007. Accessed via SagePub. [2] Little, C.A. et al. "Early Opportunities to Strengthen Academic Readiness: Effects of Summer Learning on Mathematics Achievement." *Gifted Child Quarterly*, 62:1, 2018. Accessed via SagePub. [3] Augustine et al., "Learning from Summer: Effects of Voluntary Summer Learning Programs on Low-Income Youth," Op. cit.

communities that are experiencing higher levels of poverty, homelessness and food insecurity, and are facing disparities in education and access to extracurricular activities."[20] They note that summer learning programs can benefit African-American and Latino communities by: [21]

- Ensuring children have access to academically enriching activities, helping close the opportunity gap between higher-income and lower-income families;

- Tackling the achievement gap between white students and African-American and Latino students by increasing attendance, homework completion and engagement in school, and ultimately raising graduation rates and test scores;

- Combating food insecurity among children by providing nutritious snacks and meals, which are especially important during the summer months when schools are out of session; and

- Providing working parents with peace of mind knowing that their child is in a safe and supervised space during the out-of-school hours.

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[20] "The Importance of Afterschool and Summer Learning Programs in African-American and Latino Communities. Afterschool Alert. Issue Brief No. 59." Afterschool Alliance, July 1, 2013. p. 1.
https://files.eric.ed.gov/fulltext/ED546834.pdf
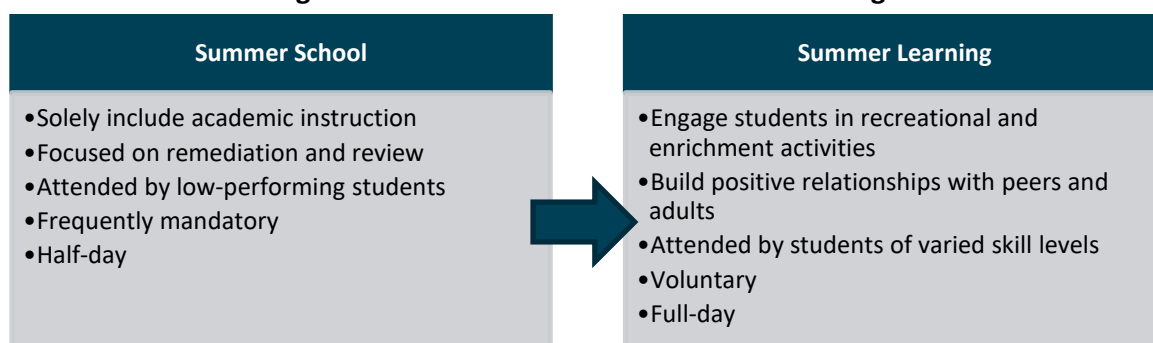[21] Bullet points quoted verbatim from: Ibid., p. 2.

# SECTION II: BEST PRACTICES FOR SUMMER LEARNING PROGRAMS IN GRADES K-3

This section discusses research-based features of effective elementary summer learning programs, as well as strategies for evaluating summer learning programs.

## FEATURES OF EFFECTIVE SUMMER LEARNING PROGRAMS

**Summer learning programs should provide engaging and enriching learning experiences for students.** In a 2009 review of effective summer learning programs, the Wallace Foundation describes how traditionally, summer school programs were simply extensions of the school year, targeting low-achieving students. However, districts increasingly offer summer programming for students with "wide-ranging interests and needs," which the Wallace Foundation describes as "summer learning programs."[22] Today's summer learning programs may include educational programming, arts activities, sports, and other opportunities to support student development during the summer months. In addition, the review's authors observe that these programs are more likely to be voluntary and full-day. Figure 2.1 describes the contrast between traditional summer school and enriching summer learning programming.

**Figure 2.1: Summer School vs. Summer Learning**

| Summer School | Summer Learning |
|---|---|
| •Solely include academic instruction<br>•Focused on remediation and review<br>•Attended by low-performing students<br>•Frequently mandatory<br>•Half-day | •Engage students in recreational and enrichment activities<br>•Build positive relationships with peers and adults<br>•Attended by students of varied skill levels<br>•Voluntary<br>•Full-day |

Source: The Wallace Foundation[23]

Researchers find that effective summer learning programs share common features, such as those in Figure 2.2 on the following page. Many of these practices focus on structural design features, such as class size and staff ratios, as well as process features such as opportunities for learning and enrichment and hands-on activities. In contrast to these features of effective programs, research shows that ineffective and failed summer programs also share common

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[22] Terzian, M., K.A. Moore, and K. Hamilton. "Effective and Promising Summer Learning Programs and Approaches for Economically Disadvantaged Children and Youth." The Wallace Foundation, July 2009. p. 10. http://www.wallacefoundation.org/knowledge-center/documents/effective-and-promising-summer-learning-programs.pdf

[23] Figure content adapted from: Ibid.

characteristics, including a limited academic focus, short program duration, little advanced planning, and loose organization.[24]

**Figure 2.2: Features of Effective Summer Learning Programs**

- Aligned school-year and summer curricula;
- A broad array of enrichment opportunities;
- Programming is rigorous and includes engaging, hands-on activities;
- Group learning that is complemented with individual support;
- Learning is grounded in a real-world context;
- Opportunities for skill-building and mastery;
- Intentional relationship building;
- The inclusion of youth voice;
- Academic classes that are limited to 15 students, with at least two adults;
- High-quality instruction (hiring effective and motivated teachers and providing professional development); and
- Practices to maximize participation and attendance.

Source: Multiple[25]

## HIGH-QUALITY CURRICULUM AND INSTRUCTION

**Summer learning programs require a quality curriculum to effectively improve student outcomes**. Specifically, in their evaluation of summer learning programs at five urban districts, researchers with the RAND Corporation found that districts encounter many challenges with developing their own curriculum for summer learning. Thus, the researchers recommend districts use an evidence-based, commercially available curriculum. Their external curriculum reviewers found that districts with the strongest curricula were those that implemented a purchased, commercial program, rather than those that created their own.[26] The researchers note that while purchased curricula are not necessarily superior to district-designed curricula, the challenges districts face with creating their own curricula often result in a lower-quality curriculum. Accordingly, "curriculum development is time intensive and best done by curricular experts. In our observations, curriculum planning added another layer of responsibility that was difficult for program staff to manage."[27]

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[24] "Summer Starts in September: A Comprehensive Planning Guide for Summer Learning Programs." National Summer Learning Association. p. 19. https://bostonbeyond.org/wp-content/uploads/2016/06/ss_in_s_sample_pages.pdf

[25] [1] Terzian, M. and K.A. Moore. "What Works for Summer Learning Programs for Low-Income Children and Youth: Preliminary Lessons from Experimental Evaluations of Social Interventions." Child Trends, September 1, 2009. p. 5. https://www.childtrends.org/wp-content/uploads/2009/09/2009-41WWSummerLearning.pdf [2] McLaughlin, B. and S. Pitcock. "Building Quality in Summer Learning Programs: Approaches and Recommendations." Wallace Foundation, September 1, 2009. pp. 5–6. https://www.wallacefoundation.org/knowledge-center/documents/building-quality-in-summer-learning-programs.pdf [3] "Summer Starts in September: A Comprehensive Planning Guide for Summer Learning Programs," Op. cit., p. 19.

[26] Augustine, McCombs, Schwartz, et al., Op. cit., pp. 17–19.

[27] Ibid.

When selecting a curriculum, either commercially available or district-developed, district leaders must ensure that learning goals align with the district's priorities and that selected units and learning targets fit the summer timeframe. Indeed, the RAND study found that "Even when a summer-specific curriculum is selected, district staff augment it with district-specific learning goals and supplementary activities."[28]

**Experts recommend that, to improve student achievement, curriculum and instruction in summer learning programs should align with curricular standards and school-year activities.** Research from Child Trends finds that effective summer learning programs teach content that aligns with grade-level curricular standards for English language arts and mathematics.[29] Districts can involve curriculum experts to help ensure that the summer learning curriculum aligns with the school-year curriculum and that both curricula are structured around the same principles and goals.[30] While aligning with standards, curricular activities and instruction should complement and extend the content and activities students learn during the school year.[31] Districts should also ensure that "teachers have a clear understanding of the standards to which they are expected to teach and the time they are expected to spend on instruction."[32] Additionally, the curriculum should align with both students' interests and their needs in order to maintain student engagement and target improvement efforts.[33]

Additional recommendations for high-quality curriculum and instruction from the RAND study include providing teachers with curricular materials for differentiating instruction and standardizing the curriculum across district sites, as discussed in Figure 2.3 below.

**Figure 2.3: Recommendations for Providing High-Quality Curriculum and Instruction**

| Provide teachers with curricular materials for differentiating instruction | Standardize the curriculum and curricular materials across district sites |
|---|---|
| When possible, districts should provide teachers with materials for differentiating their lessons to meet students' needs. For example, RAND researchers found that one district in their study provided teachers with lesson plans and different activities for struggling students and those who require further challenges. | Districts with the strongest curricula provide teachers centrally-purchased or developed curricular materials for all teachers to follow. RAND found that districts that exposed students to the same skill development objectives and amount of instruction across sites had better outcomes than those where teachers developed their own lessons and the type of instruction and amount of instructional time differed across sites. |

Source: RAND Corporation[34]

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[28] Ibid., p. 19.
[29] Terzian and Moore, Op. cit., p. 3.
[30] Augustine, McCombs, Schwartz, et al., Op. cit., p. 19.
[31] [1] Terzian and Moore, Op. cit., p. 3. [2] McEachin, A., C.H. Augustine, and J. McCombs. "Effective Summer Programming: What Educators and Policymakers Should Know." *American Educator*, 42:1, January 1, 2018. p. 10. https://files.eric.ed.gov/fulltext/EJ1173313.pdf
[32] Augustine, McCombs, Schwartz, et al., Op. cit., p. 21.
[33] McEachin, Augustine, and McCombs, Op. cit., p. 10.
[34] Augustine, McCombs, Schwartz, et al., Op. cit., p. 21.

## SMALL CLASS SIZES AND QUALITY STAFFING

**Effective summer learning programs have small class sizes and low teacher-to-student ratios.** Research indicates that teachers struggle to meet students' needs in large classes, even with a second adult in the classroom, and that small class sizes effectively contribute to improved summer learning outcomes.[35] For example, small class sizes in summer learning programs can help to:[36]

- Facilitate opportunities for small-group instruction;
- Provide teachers with more time to provide individualized instruction and to differentiate instruction to meet students' needs; and
- Allows teachers to get to know their students better within the shorter timeframe of summer learning programs.

Specific recommendations for maximum class size vary from 10-20 students per class.[37] Similarly, recommendations for adult-to-student ratios also vary: research from Child Trends suggests a 1:5 adult-to-student ratio with one lead teacher and one teaching assistant per class, or two to four adults per classroom, with one adult being a trained teacher.[38] If using aides or paraprofessionals, districts must provide these adults with training on the curriculum so they can effectively support student learning.[39]

### STAFFING

**Quality summer learning programs hire experienced, trained teachers.**[40] The RAND Corporation emphasizes that teachers should have experience in behavior management. To select impactful teachers to participate in the summer program, RAND offers the recommendations listed in Figure 2.4, on the following page.

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[35] [1] Hall, G., K.F. Poston, and J. Dennehy. "Summer Learning Programs: Investigating Strengths and Challenges." In *After-School Programs to Promote Positive Youth Development*, Springer, 2017. pp. 3–4. https://www.wcwonline.org/pdf/ghall/Hall_et_al_(2017)_summer_learning.pdf [2] Terzian, Moore, and Hamilton, Op. cit., p. 17. [3] McEachin, Augustine, and McCombs, Op. cit., p. 10. [4] Augustine, McCombs, Schwartz, et al., Op. cit., p. 21.

[36] McEachin, Augustine, and McCombs, Op. cit., p. 10.

[37] [1] Terzian, Moore, and Hamilton, Op. cit., p. 17. [2] McEachin, Augustine, and McCombs, Op. cit., p. 10. [3] Terzian and Moore, Op. cit., p. 3.

[38] [1] Terzian, Moore, and Hamilton, Op. cit., p. 17. [2] Terzian and Moore, Op. cit., p. 3.

[39] Augustine, McCombs, Schwartz, et al., Op. cit., p. 21.

[40] Terzian, Moore, and Hamilton, Op. cit., p. 17.

**Figure 2.4: Staffing Summer Learning Programs**

| Recruit and hire the right teachers. | Give teachers sufficient training and ongoing support. |
|---|---|
| • Develop rigorous selection processes to recruit motivated teachers.<br>• Take teachers' school-year performance into consideration.<br>• Hire teachers with grade-level and subject-matter exxperience and, if possible, familiarity with the students.<br>• Negotiate with teachers' unions, if necessary, to establish a competitive selection process. | • Familiarize teachers with the summer curriculum and how to teach it.<br>• Help teachers tailor the curriculum for students with different aptitudes.<br>• Provide ongoing support to implement the curriculum.<br>• Include all instructional staff in academic training sessions.<br>• Give teachers time to set up their classrooms in advance. |

Source: RAND Corporation[41]

Districts may also consider using high school volunteers or hiring AmeriCorps volunteers to support summer learning programs. Teachers who want administrative experience may be willing to serve as summer site coordinators.[42]

## ACTIVE LEARNING AND ENRICHMENT

**Summer learning programs should engage students through opportunities for active, hands-on learning**.[43] Research suggests that effective summer learning programs provide instruction that actively engages students in the material through hands-on learning activities that spark students' interest and have real-world applications. [44] Indeed, interactive instruction and experiential learning can help increase student engagement in learning.[45]

For example, districts can use project-based learning (PBL) to engage students in active learning during the summer. PBL is often interdisciplinary and involves groups of students working together on learning activities that are designed to solve a problem or answer a question.[47]

**Districts can provide students with engaging, active-learning experiences through enrichment activities**. Enrichment activities should be interesting, relevant,
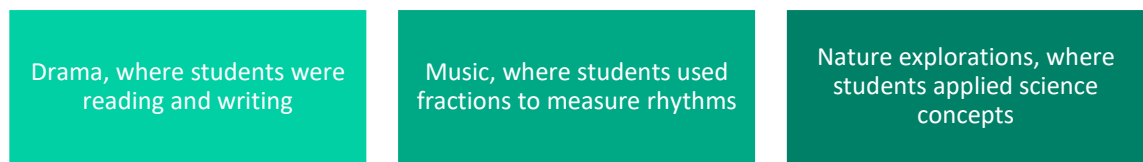
*Examples of engaging enrichment activities include field trips, games, art, drama, use of technology, storytelling, and science experiments.*[46]

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[41] Augustine, McCombs, Schwartz, et al., Op. cit., p. xiv.

[42] McCombs, J. et al. "Making Summer Count." RAND Corporation, 2011. p. xvii. http://www.rand.org/content/dam/rand/pubs/monographs/2011/RAND_MG1120.pdf

[43] [1] Bittner, R. "Connecting the Dots: Making the Most of After-School and Summer Learning Programs." *Principal*, January 2, 2018. p. 6. Accessed via EbscoHost. [2] Terzian and Moore, Op. cit., p. 4. [3] Hall, Poston, and Dennehy, Op. cit., p. 5.

[44] [1] Hall, Poston, and Dennehy, Op. cit., p. 5. [2] Bittner, Op. cit., p. 6.

[45] Terzian and Moore, Op. cit., p. 4.

[46] Ibid., pp. 3–4.

[47] Hall, Poston, and Dennehy, Op. cit., p. 4.

and engaging for students, and many also offer time for sports or opportunities for students to engage in physical activity.[48] Enrichment activities serve a variety of benefits for summer learning programs. For example, enrichment activities can:[49]

- Attract students to the program;
- Differentiate the program from traditional summer school (often considered punitive);
- Improve attendance;
- Provide students from low-income families with experiences they may not otherwise receive;
- Assist students' personal development; and
- Augment academic experiences.

**While not all enrichment activities need to align with academic content, experts recommend that summer learning programs integrate academic and enrichment experiences to increase student engagement and hands-on learning**.[50] Accordingly, research finds that districts integrating academic and enrichment experiences "are more likely to succeed if they conduct careful planning, offer specific curricular guidance and additional training, and promote greater coordination of academic and enrichment staff."[51] Districts should provide teachers with guidance on how to reinforce academic content through enrichment activities.[52] Additionally, districts should aim to embed academic content into enrichment naturally.[53] For example, RAND researchers offer the following examples:[54]

| Drama, where students were reading and writing | Music, where students used fractions to measure rhythms | Nature explorations, where students applied science concepts |
| --- | --- | --- |

## COMMUNITY PARTNERSHIPS

**Districts often partner with community-based organizations to offer enrichment activities during summer learning programs**. Research shows that community partnerships provide multiple benefits to both summer learning programs and students, as presented in Figure 2.5 on the following page.

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[48] Terzian and Moore, Op. cit., p. 3.
[49] Augustine, McCombs, Schwartz, et al., Op. cit., pp. 29–31.
[50] [1] Ibid., p. 33. [2] Hall, Poston, and Dennehy, Op. cit., p. 5.
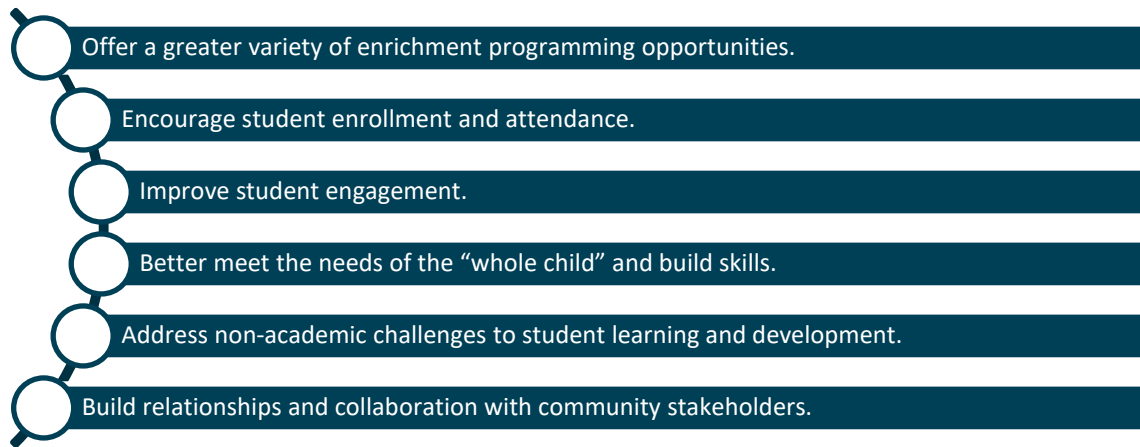[51] Augustine, McCombs, Schwartz, et al., Op. cit., p. 33.
[52] [1] Ibid. [2] Hall, Poston, and Dennehy, Op. cit., p. 5.
[53] Augustine, McCombs, Schwartz, et al., Op. cit., p. 33.
[54] Figure contents quoted verbatim with modifications from: Ibid.

**Figure 2.5: Benefits of Community Partnerships for Summer Learning Programs**

- Offer a greater variety of enrichment programming opportunities.
- Encourage student enrollment and attendance.
- Improve student engagement.
- Better meet the needs of the "whole child" and build skills.
- Address non-academic challenges to student learning and development.
- Build relationships and collaboration with community stakeholders.

Source: Multiple[55]

Despite these benefits, districts must consider the qualities of effective summer learning partnerships, as forming partnerships will not improve student outcomes alone.[56] Effective community partnerships for offering summer learning enrichment have clear and open communication, collaborate to accomplish a shared vision for students, share beliefs and values about learning, and clearly understand each party's responsibilities.[57] Figure 2.6 below highlights additional structural features of successful community partnerships.

**Figure 2.6: Characteristics of Successful Community Partnerships**

- Establishing clear lines for the division of labor and responsibilities;
- Involving all participating school officials in the partnership from the planning to execution stages of the collaboration;
- Engaging some level of supervision from the schools over the partnership;
- Sharing of student data between schools and community partners; and
- Generating written documents and agreements that outline partners' expectations for the collaboration, management of shared and unique resources, and specific roles and responsibilities for carrying out a successful partnership

Source: Hall, Poston, and Dennehy[58]

## DURATION AND TIME ALLOCATION

**Summer learning programs must include a sufficient duration and number of hours of academic programming**.[59] Experts recommend dedicating a minimum of five to six weeks of full-day programming for summer learning programs, or at least 70 academic hours.[60] In

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[55] [1] McCombs et al., "Making Summer Count," Op. cit., pp. 50–51. [2] Hall, Poston, and Dennehy, Op. cit., pp. 6–7.

[56] Hall, Poston, and Dennehy, Op. cit., p. 7.

[57] Ibid., p. 8.

[58] Bullet points quoted verbatim with modification from: Ibid.

[59] [1] McEachin, Augustine, and McCombs, Op. cit., p. 11. [2] Augustine, McCombs, Schwartz, et al., Op. cit., p. 40.

[60] [1] Augustine, McCombs, Schwartz, et al., Op. cit., p. 40. [2] McEachin, Augustine, and McCombs, Op. cit., p. 11. [3] Hall, Poston, and Dennehy, Op. cit., pp. 3–4.

addition to this guidance, factors districts should consider when determining program duration include:[61]

- Budget;
- Time needed for school-year preparations (e.g., time to close down the prior school year);
- Time to prepare for the next school year; and
- Time to ensure school facilities receive summer maintenance.

In addition to program duration, experts emphasize the importance of maximizing academic time on task each day for improving student outcomes.[62] Research indicates that summer learning programs should provide students with three to four hours of academic instruction per day.[63] Within this time, researchers recommend allocating at least two hours to literacy instruction, with a combination of whole-group and small-group instruction four to five times per week, and scheduling 60 to 90 minutes of mathematics instruction per day.[64] The RAND study found that, while districts differ in the number of academic hours, teachers in districts with a greater number of hours of academic instruction were more likely to agree that the program could significantly improve student academic achievement than teachers in districts with fewer hours of academic instruction.[65]

Experts also highlight the difference between allocated time, or "the time on the school calendar for a given content area," and academic learning time, or "the amount of time students spend working on rigorous tasks at the appropriate level of difficulty."[67] Because academic learning time can predict student achievement better than allocated time, how programs and teachers use time in the classroom is essential to program and student outcomes.[68]



*"If a goal of the summer program is to improve academic outcomes, maximizing academic time on task is critical."[66]*

Notably, the RAND study found that teachers often struggle to meet time-on-task goals due to time spent on non-instructional tasks, inadequate class duration, and transition time between classes.[69] Thus, districts can implement the following practices to encourage a focus on academic content during academic learning time:[70]

- Adopting a clear, effective curriculum with an expectation that teachers follow it;
- Scheduling time for students to move from one class to another;

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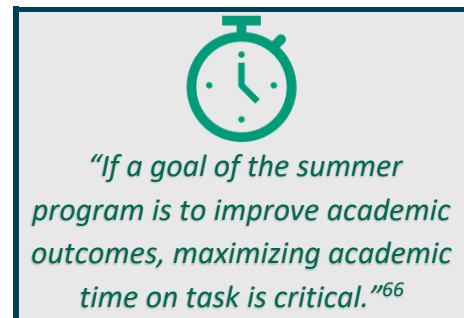
[61] Bullet points quoted verbatim with modification from: Augustine, McCombs, Schwartz, et al., Op. cit., p. 40.
[62] [1] Ibid., pp. 40–41. [2] McEachin, Augustine, and McCombs, Op. cit., p. 11.
[63] [1] Augustine, McCombs, Schwartz, et al., Op. cit., pp. 40–41. [2] Hall, Poston, and Dennehy, Op. cit., pp. 3–4.
[64] McEachin, Augustine, and McCombs, Op. cit., p. 11.
[65] Augustine, McCombs, Schwartz, et al., Op. cit., pp. 40–41.
[66] Ibid., p. 40.
[67] McEachin, Augustine, and McCombs, Op. cit., p. 11.
[68] Ibid.
[69] Augustine, McCombs, Schwartz, et al., Op. cit., p. 21.
[70] Bullet points quoted verbatim with modification from: Ibid., p. 41.

- Hiring strong teachers; and
- Clearly articulating that academic achievement is an important goal of the program.

Notably, Hanover was unable to locate literature or guidance on the allocation of time to specific activities within summer learning programs.

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**SECTION SPOTLIGHT:**
**ELEMENTARY SUMMER LEARNING AT ROCHESTER CITY SCHOOL DISTRICT**

Rochester City School District (RCSD), located in New York, offers a wide variety of summer learning program options for students in elementary school. RCSD offers summer learning programs at no cost to families, provides free transportation to and from the program, and provides free breakfast and lunch at most locations. Additionally, programs last for a minimum of five weeks and are taught by certified district teachers. In some cases, students even have teachers from their own school.[71]

RCSD's elementary summer learning programs combine academic instruction with engaging enrichment activities. For example, a literacy-focused program provides students with a daily two and half hour literacy block using an Integrated Reading Curriculum that aligns with national Common Core Learning Standards, as well as enrichment activities in the afternoon. Other programs also focus on math, science, and social studies, enhance students' social-emotional competencies, and include hands-on, project-based learning.[72]

RCSD also works with variety of community partners to coordinate summer learning opportunities, in addition to district-based academic programs. Figure 2.7 below presents community partner programs for elementary school students offered by RCSD for summer 2018. These programs take place at district school sites, local colleges and universities, and community centers.[73]

**Figure 2.7: Elementary Summer Learning Community Partnerships at Rochester City School District**

| PROGRAM | GRADE LEVELS | DESCRIPTION |
|---|---|---|
| **City Kids to Sisol** | K-6 | Camp Sisol has a strong tradition of making summers meaningful and enriching. In addition to targeted literacy-based activities, Camp Sisol offers physical fitness, intellectual challenges, swimming, and values/character development |
| **EnCompass RCSD Summer Elementary Program** | K-5 | The EnCompass elementary summer learning program combines inquiry-based learning and targeted tutoring with added social-emotional learning experiences. There are daily opportunities for physical activity and healthy eating along with ELA and math tutoring. |
| **Horizons at MCC** | K-8 | The Horizons Program at MCC is a six week, full-day summer enrichment program focused on literacy and math that utilizes the experiential teaching model. All program participants are required to learn how to swim and also participate in other wellness and arts-related activities. |

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[71] "Summer Learning Programs 2018." Rochester City School District, 2018. p. 4.
https://www.rcsdk12.org/cms/lib/NY01001156/Centricity/Domain/2275/SummerLearningbk_2018.pdf
[72] Ibid., p. 5.
[73] "Summer Learning Programs 2018," Op. cit.

| | | |
|---|---|---|
| **Horizons at Harley** | K-8 | The Horizons Program at Harley is a six week, full-day summer enrichment program focused on literacy and math that utilizes the experiential teaching model. All program participants are required to learn how to swim and also participate in other wellness and arts-related activities. |
| **Horizons at Warner/U of R** | K-8 | Horizons at Warner is a summer enrichment program that engages students in meaningful and authentic learning experiences in a non-traditional school setting. High-quality instruction for reading and math is provided each morning, and small groups conduct thematic investigations in the afternoon. Friday consists of a field trip and student-selected workshops from topics such as robotics, chemistry, physics, computer programming, gardening, astrophysics, book publication, and photography. |
| **Power Scholars Academy** | K-3 | The goal of this program is to increase students' academic success and boost self-confidence, while also engaging families in the education process. This program is designed to address summer learning loss and enhance overall youth development, academic performance, and graduation rates. |
| **Summer LEAP at Allendale Columbia** | K-6 | Allendale Columbia Summer LEAP is a six-week educational program for students in Grades K-6 that will focus on the areas of math and literacy in a creative and innovative program. Summer LEAP aligns with the mission of the District, while creating a welcoming environment for learners, family members, and community partners. |
| **SummerLEAP at Brockport** | K-6 | SummerLEAP at Brockport is a six-week, full-day summer enrichment program focused on literacy and math that utilizes the experiential teaching model. All program participants are required to learn how to swim and also participate in other wellness and arts-related activities. |
| **Boy Scouts** | K-12 | The aim of the Boy Scouts summer program is to provide the opportunity for male students in the Rochester City School District who are current or potential scouts to attend Summer Camp and achieve the program rationale. The summer Day Camp at Genesee Valley Park is in conjunction with two overnight camps—Camp Babcock-Hovey in Ovid, NY and Camp Cutler in Naples, N.Y. |
| **Summer LEAP at West Irondequoit** | K | As part of our EPK to Grade 3 initiative, this program serves students who participated in a Summer LEAP 2017 classroom as a rising Kindergarten student. This program provides a summer learning pathway which tracks students into 3rd grade. |
| **Community Place of Greater Rochester** | K-8 | The Community Place of Greater Rochester's Community Summer Learning Center (CSLC) provides a safe, structured six-week summer program for students in Grades K-8 that includes interactive enrichment activities: academic, STEM, arts, culture, physical activities, healthy snacks, parent engagement, peer engagement through social-emotional learning, and exciting field trips. |
| **Baden Street** | K-6 | The program will provide children with stimulating activities, which will demonstrate their abilities in reading, writing, and mathematics. Innovation techniques through technology will enhance the activities delivered to the students. Technology-based learning, math and movement, and small group games will support academic readiness and enrichment. |

Source: Rochester City School District[74]

## STRATEGIES FOR EVALUATING SUMMER LEARNING PROGRAMS

**Experts recommend that districts evaluate their summer learning programs to clarify program goals, identify necessary supports, and determine program strengths and development areas**. Districts can use the results of the evaluation to adjust the summer

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[74] Figure contents quoted verbatim from: Ibid., pp. 8–9.

learning program to improve its quality.[75] Notably, districts should plan for evaluation while planning the summer learning program. According to RAND, "Engaging in data collection and analysis continuously rather than waiting till the end of a program can help determine what led a program to its final outcomes."[76]

**Notably, meaningful, effective program evaluations are grounded in strong standards for evaluation design.** The American Evaluation Association (AEA) recommends that educational program evaluations uphold the following standards, from the Joint Committee on Standards for Educational Evaluation:[77]

**Utility:** The evaluation is useful and meets program needs;

**Propriety:** The evaluation is fair, legal, and just; and

**Feasibility:** The evaluation is efficient and cost-effective;

**Accuracy:** The evaluation is dependable and truthful.

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**SECTION SPOTLIGHT: PROGRAM EVALUATION AT DALLAS INDEPENDENT SCHOOL DISTRICT**

Dallas Independent School District (Dallas ISD) conducts program evaluations within the Office of Program Evaluation and abides by the Joint Committee on Standards for Educational Evaluation and AEA's program evaluation standards. Leaders of this office note that program evaluation is cyclical, and that "results of one year's final report are often used as a guide to update program goals (if needed) and to create the evaluation plan for the next year."[78] The annual program evaluation cycle at the district is described as follows:[79]

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[75] McCombs et al., "Making Summer Count," Op. cit., p. 34.

[76] "5 Ways to Make Summer Learning Programs Successful." Child Trends, May 30, 2013.
https://www.childtrends.org/child-trends-5/5-ways-to-make-summer-learning-programs-successful

[77] "Educational Program Evaluation Standards." American Evaluation Association.
https://www.eval.org/p/cm/ld/fid=103

[78] "The Dallas ISD Program Evaluation Process." Dallas Independent School District.
http://www.dallasisd.org/Page/42560

[79] Figure reproduced verbatim from: "The Dallas ISD Program Evaluation Process," Op. cit.

*Click here to view a summary of Dallas ISD's evaluation report for their 2016—2017 summer learning programs.*
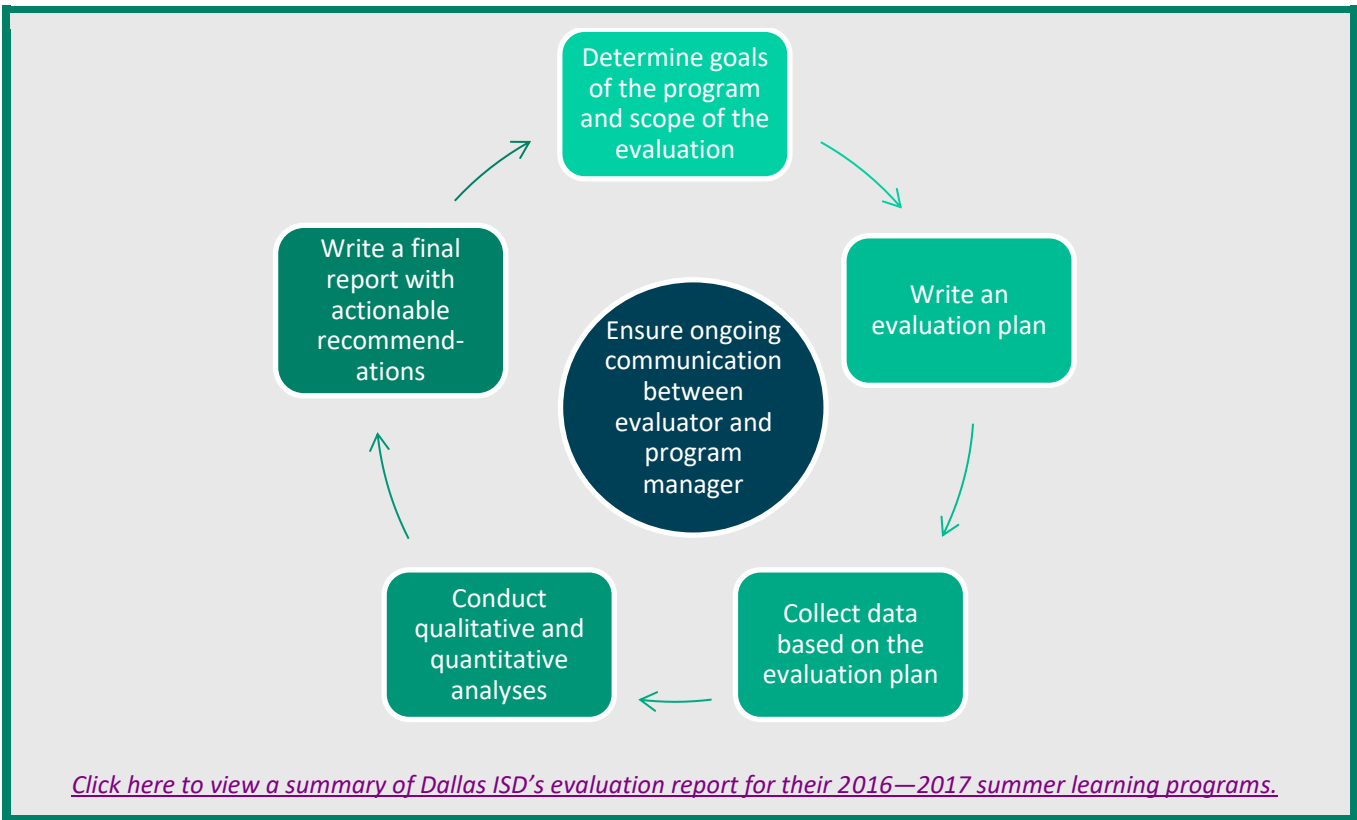
## DEFINING THE PROGRAM AND CREATING A LOGIC MODEL

**Evaluating summer learning programs requires defining the purpose and goals of the program,** as well as included populations, activities, and expected outcomes. Summer learning program evaluations often rely on logic models to create a comprehensive summary of these program elements. [80] This model ensures that evaluators understand the "big picture," as well as the key evaluation questions to ask and how to structure the overall evaluation design. Logic models serve to map the relationship between program goals, inputs, and outcomes. Figure 2.8, on the following page, presents the general format of a logic model, which represents "a picture of how you believe your program will work."[81]

The diagram maps the resources — financial, human, and organizational — devoted to the program, which support the activities carried out by the program. **Outputs** are the direct results of the program's activities, and **outcomes** reflect the change in participants because of program activities. **Impacts** are the long-term changes that occur within the individuals and communities exposed to the program. [82] The National Summer Learning Association recommends starting by determining long-term outcomes (the "change that you desire to

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[80] "Summer Starts in September: A Comprehensive Planning Guide for Summer Learning Programs," Op. cit., p. 59.
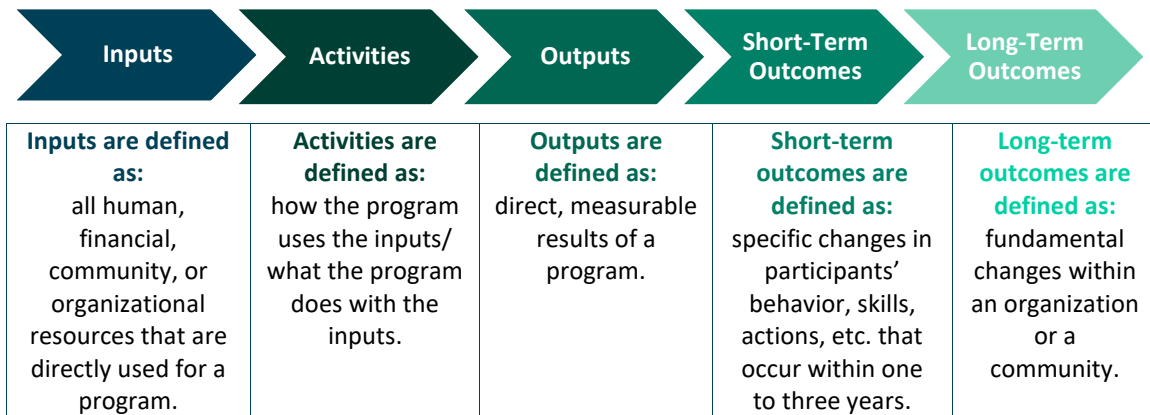[81] "W.K. Kellogg Foundation Logic Model Development Guide." W.K. Kellogg Foundation, February 2006. p. 1.
Accessible from:
https://www.wkkf.org/resource-directory/resource/2006/02/wk-kellogg-foundation-logic-model-development-guide
[82] Ibid., p. 2.

foster in participants after 2-5 years of programming") rather than inputs, noting that this "allows you to effectively align staff and youth recruitment, partnerships and resource allocation with the goals of your program." [83]

**Figure 2.8: Logic Model for Evaluating Programs**

| Inputs | Activities | Outputs | Short-Term Outcomes | Long-Term Outcomes |
|---|---|---|---|---|
| **Inputs are defined as:** all human, financial, community, or organizational resources that are directly used for a program. | **Activities are defined as:** how the program uses the inputs/ what the program does with the inputs. | **Outputs are defined as:** direct, measurable results of a program. | **Short-term outcomes are defined as:** specific changes in participants' behavior, skills, actions, etc. that occur within one to three years. | **Long-term outcomes are defined as:** fundamental changes within an organization or a community. |

Source: Hanover Research

Using a logic model to inform program design—or examine the components and anticipated outcomes of an existing program—builds a foundation for designing meaningful research questions for the program evaluation.[84] Logic models should be created and revised within an evaluation team to incorporate multiple viewpoints.[85] Once the model is created, the team should review the model to determine any gaps or misalignment in the logic.

## RESEARCH QUESTIONS AND EVALUATION DESIGN

**Selecting meaningful research questions for a program evaluation requires careful thought and planning on the part of evaluators.** Early in the planning process, the evaluation team should establish consensus on the fundamental purpose of the study, drawing on input from stakeholders and the previously defined program details. Strong program evaluations are built around research questions that allow evaluators to focus on specific criteria for program success or progress.

Evaluation questions can typically be considered in two categories: formative or process questions and summative or outcome questions. **Formative** questions focus on the fidelity and success of implementation, while **summative** questions focus on the actual outcomes of the program or initiative in question.[86] Figure 2.9 on the following page outlines types of questions answered by formative and summative program evaluations.

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[83] "Summer Starts in September: A Comprehensive Planning Guide for Summer Learning Programs," Op. cit., p. 59.

[84] Haynie, K. "Planning Evaluations for DR K-12 Design Projects: An Evaluative Framework Using Evidence-Centered Design." SRI International, 2010, p. 11. https://ecd.sri.com/downloads/ECD_TR5_Evaluative_Framework.pdf

[85] "How to Create a Logic Model." The Pell Institute and Pathways to College Network, 2014. http://toolkit.pellinstitute.org/evaluation-guide/plan-budget/use-a-logic-model-in-evaluation/

[86] "Program Evaluation Guide." Robert R. McCormick Foundation, 2013, pp. 5-6. http://documents.mccormickfoundation.org/pdf/EvaluationGuide_6.19.13.pdf

**Figure 2.9: Formative and Summative Evaluations**

| Formative/Process Evaluation | Summative/Outcome Evaluation |
|---|---|
| • How is the implementation going?<br>• What processes need to be adjusted?<br>• Do the roles/responsibilities seem to be working well?<br>• Are there environmental factors that weren't taken into account that require the model to be adjusted? | • Is the program achieving its objectives?<br>• What is its overall quality?<br>• What predicted and unpredicted impacts has the program had?<br>• Is this something that we want to continue to support or encourage its expansion? |

Source: McCormick Foundation[87]

Meaningful evaluation questions should help evaluators focus on the most important information. The use of targeted research questions helps evaluators avoid becoming "data rich, but information poor," allowing data to be organized into a meaningful narrative.[88] To hone in on the most significant data points and indicators, evaluators should ask no more than five or six "essential questions" in each evaluation.[89]

**Once the evaluation team selects a small number of essential research questions, the team should select appropriate methodologies to address the research questions.** The methodology or methodologies used should depend upon the district's goals, circumstances, and preferences. Districts should consider the following questions when selecting a methodology:[90]

- Which design will provide me with the information I want?

- How feasible is each option?

- How valid and reliable do my findings need to be?

- Are there any ethical concerns related to choosing a specific design?

- How much would each option cost?

The types of research design for program evaluations vary by the questions asked and the types of information available. The Pell Institute and Pathways to College Network note four major research designs, listed in Figure 2.10 (on the following page), and the advantages and disadvantages associated with each design. Notably, the first three evaluation designs must be designed before the intervention, program, or initiative takes place. While the "Ex Post Facto" evaluation design may be more cost-effective, it may not be able to provide strong evidence or justification of conclusions.

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[87] Figure created with language verbatim from: "Program Evaluation Guide," Op. cit.
[88] Ronka, David, et. al. "Answering the Questions that Count." Educational Leadership. December 2008-January 2009. p. 18. http://www.ascd.org/publications/educational-leadership/dec08/vol66/num04/Answering-the-Questions-That-Count.aspx
[89] Ibid. pp. 18-19.
[90] Bullets cited directly from: "Choose an Evaluation Design." The Pell Institute and Pathways to College Network, 2014. http://toolkit.pellinstitute.org/evaluation-guide/plan-budget/choose-an-evaluation-design/

**Figure 2.10: Evaluation Research Designs**

| RESEARCH DESIGN | DESCRIPTION | ADVANTAGES | DISADVANTAGES |
|---|---|---|---|
| **Pre-Experimental Design** | The most common pre-experimental design is the pre-test/post-test design, which collects information twice: once before the intervention and once after. | This can be administered to show general trends in program performance. It is a good option if the level of rigor necessary is relatively low. It is a convenient and relatively low-cost method. | Because the design does not control for many external factors, it does not establish a rigorous causal link between the intervention and outcomes. |
| **Experimental Design** | This is the "golden standard" in evaluation design. It demonstrates a causal relationship between program activities and student outcomes through random assignment of learners to either a treatment or control group. | There is a high degree of validity in the findings as they relate to the groups in question and causal relationships are determined with a high level of confidence. | Findings have limited validity outside of the groups examined because of the controlled experimental environment. Ethical considerations (e.g., denying students best service) is a concern. |
| **Quasi-Experimental Design** | The design for these evaluations is very similar to experimental design except that individuals are not randomly assigned to treatment and control groups. This design requires identifying a comparison group with similar characteristics to the treatment group. | Quasi-experimental design provides the rigor of an experimental study without the ethical concerns associated with random assignment. | This method does not control for all the possible factors that influence outcomes. |
| **Ex Post Facto Designs** | This non-experimental study design seeks to explain existing differences in outcomes *after* an intervention has occurred. | These studies tend to avoid ethical issues and are more cost-effective than other evaluation designs. | It is limited in scope and ability to explain hypotheses by the amount of available data. It is difficult to prove causation because controlling for alternative influences is impossible. |

Source: The Pell Institute and Pathways to College Network[91]

## SELECTING DATA SOURCES

**After identifying evaluation questions and establishing an evaluation design, evaluators should identify the data sources needed to answer each research question.** The AEA underscores the importance of identifying appropriate data sources, noting that "the relevance, accuracy, and completeness of the evidence are central to appropriate decision-making about policies, institutions, programs, and personnel and to the appropriateness of

[91] Ibid.

rewards and sanctions."[92] Therefore, districts should employ multiple measures to get a fuller, more reliable picture of the relationship between summer learning program activities and outcomes. In particular, program evaluations should include a combination of quantitative and qualitative data sources.

The figure below provides a list of common data sources, in addition to common advantages and disadvantages associated with each source. When selecting data sources, districts should consider collection methods that are practical and cost-effective. Some data types are more time-consuming and costly than others. For instance, constructing instruments such as surveys and assessments requires a substantial investment of time and resources. Districts may wish to adopt commercially developed survey instruments or work with an outside evaluator to develop survey instruments.[93] Furthermore, educators should avoid overreliance on standardized testing data to measure program outcomes, as standardized tests may be biased against traditionally underserved students.[94]

**Figure 2.11: Advantages and Disadvantages of Data Collection Instruments**

| INSTRUMENT | ADVANTAGES | DISADVANTAGES |
|---|---|---|
| Self-administered questionnaires | ▪ Inexpensive<br>▪ Can be quickly administered if distributed to group<br>▪ Well suited for simple and short questionnaires | ▪ No control for misunderstood questions, missing data, or untruthful responses<br>▪ Not suited for exploration of complex issues |
| Interviewer-administered questionnaires | ▪ Interviewer can probe to ensure question is understood<br>▪ With good rapport, may obtain useful open-ended comments, including evidence to support response | ▪ Confidentiality is an issue<br>▪ May require hiring interviewers<br>▪ Training is needed to establish consistency, nature, and use of probing questions |
| Open-ended interviews | ▪ Usually yield richest data, details, new insights<br>▪ Best if in-depth information is wanted | ▪ Same as interviewer-administered questionnaires<br>▪ Time-intensive analysis |
| Focus groups | ▪ Useful for gathering ideas and different viewpoints, discovering new insights, and improving question design | ▪ Not suited for generalizations about population being studied |
| Tests | ▪ Provide hard data, which administrators and funding agencies prefer<br>▪ Relatively easy to administer<br>▪ Good instruments may be available from vendors | ▪ Available instruments may be unsuitable<br>▪ Developing and validating new project-specific tests may be expensive and time-consuming<br>▪ Objections may be raised because of bias in instrument |

[92] "Educational Accountability Statement." American Evaluation Association, November 1, 2006. http://www.eval.org/p/cm/ld/fid=94

[93] Cicchinelli, L. and Z.A. Barley. "Sustaining Coherent Reform: An Evaluation Guide for Districts and Schools." Mid-Continent Research for Education and Learning, 2010. p. 25. http://files.eric.ed.gov/fulltext/ED544260.pdf

[94] "Educational Accountability Statement," Op. cit.

| INSTRUMENT | ADVANTAGES | DISADVANTAGES |
|---|---|---|
| **Observations** | ▪ If well executed, best for obtaining data about behavior of individuals and groups | ▪ Usually expensive<br>▪ Needs well-qualified staff<br>▪ Observation may affect behavior being studied |
| **Documents, records, and student work** | ▪ Existing materials can be used to develop data at a convenient time | ▪ Checklists or rubrics for generating data from written material must be created<br>▪ Careful definitions must be established to ensure consistency |

Source: Mid-Continent Research for Education and Learning[95]

For example, in the RAND evaluation of five urban districts' summer learning programs, researchers gathered data from interviews, observations, surveys, a review of each program's ELA and math curricula, and district data, including on students, costs, and funding sources.[96]

**After identifying data sources, districts should collect baseline data to guide the evaluation**. Districts can conduct the evaluation by comparing new data gathered throughout implementation to baseline data. If a program is already being implemented, districts may wish to identify older data that can serve as a baseline.[97]

## COLLECTING AND ANALYZING DATA

**The data collection process consists of scheduling data collection, gathering initial and follow-up information, and entering data into a management system.** When planning for data collection, educational program evaluators should consider the following scheduling considerations:[98]

**When to collect baseline data** – some data may be collected during the summer learning program, while others may need to be gathered at the beginning of the program.

**The logistics of data collection** – the team should note and resolve any foreseen logistical issues such as access to classrooms, documents, and teachers.

Because comprehensive program evaluations involve data from multiple sources, evaluation teams should clearly delineate responsibilities for data collection and analysis. Evaluation questions should be clearly linked to the data sources they require, which allows for more efficient collection. Then, the team can break each group of evaluation questions and data sources into distinct data collection tasks, which can be assigned to a group or an individual.

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[95] Figure adapted from: Cicchinelli and Barley, Op. cit., p. 26.

[96] Augustine, McCombs, Schwartz, et al., Op. cit., pp. 7–8.

[97] Asibey, E., T. Parras, and J. van Fleet. "Are We There Yet: A Communications Evaluation Guide." The Communications Network, 2008. pp. 15–16.
https://www.luminafoundation.org/files/resources/arewethereyet.pdf

[98] Bullet points quoted verbatim with modification from: Cicchinelli and Barley, Op. cit., p. 22.

While careful planning is important, evaluators should be prepared to be flexible during the collection process to allow for refining and streamlining as the evaluation proceeds.[99]

When analyzing the collected data, it is important to keep several considerations in mind to ensure that findings are accurate and do not overstate the impact of summer learning program activities. Depending on the type of data sources used, teams should assign complex data analysis processes to individuals with sufficient statistical training and expertise.

Furthermore, evaluators must also control for extraneous factors as much as possible, particularly during quantitative analyses.[100] Data should be analyzed and compiled in such a way that answers the key questions set out at the beginning of the evaluation. Mid-Continent Research for Education and Learning, an international nonprofit organization dedicated to conducting quality education research, describes an appropriate data analysis process as: "Interpreting data entails arriving at a reasonable explanation for the results obtained. To arrive at the best and most plausible interpretation of findings, consider rival explanations and then systematically rule out invalid options."[101]

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[99] Ibid., p. 24.
[100] "Educational Accountability Statement," Op. cit.
[101] Cicchinelli and Barley, Op. cit., p. 30.

# PROJECT EVALUATION FORM

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