ZENO STRATEGIC PLAN

FOR FISCAL YEARS 2016 – 2018

Updated September 2016 to reflect updated financial information, updated program information, and updated information about the education environment.

Contents

EXECUTIVE SUMMARY 3
THE PROBLEM WE ADDRESS 3
VISION AND MISSION 5
GUIDING PRINCIPLES 5
IMPLEMENTATION PLAN 7
OUTPUT, OUTCOME AND IMPACT GOALS 9
FINANCIAL STRATEGY 10

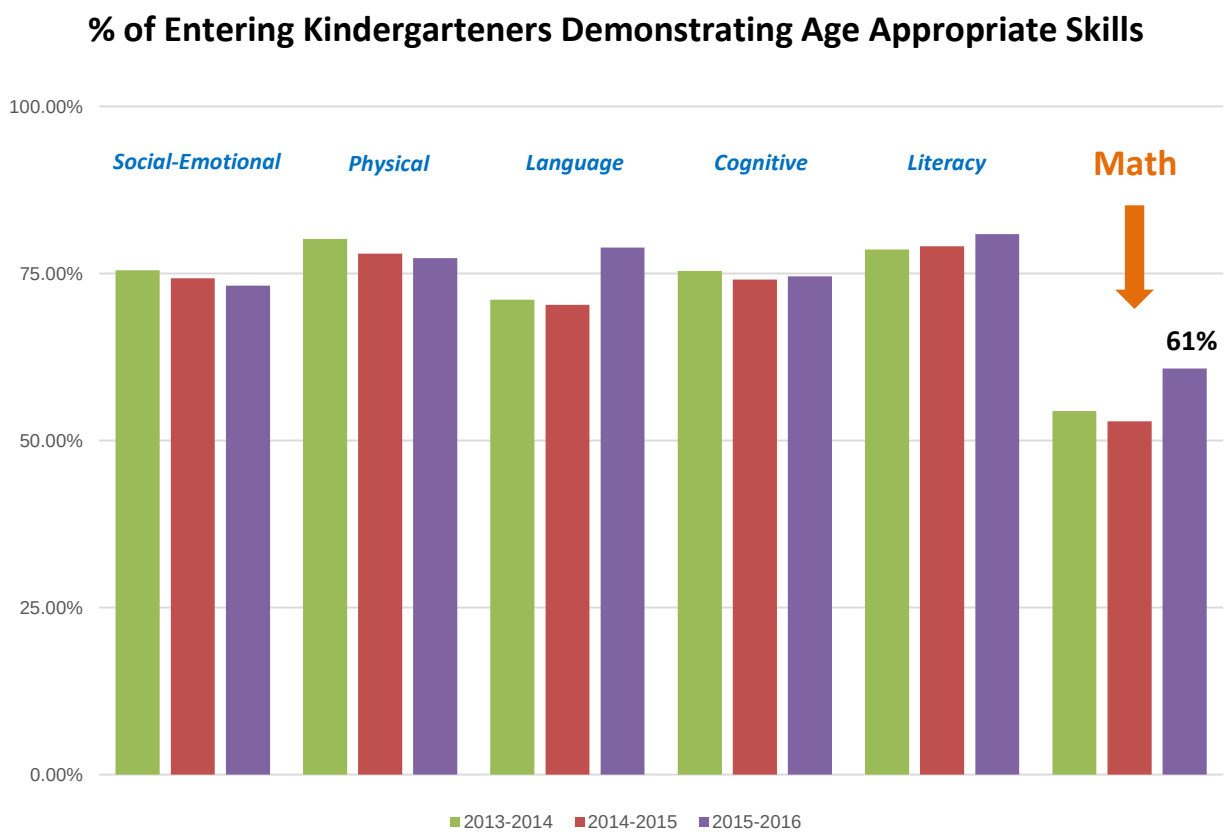
EXECUTIVE SUMMARY

In the fall of 2014, Zeno undertook the challenge of assessing and revising our strategic direction. Through this process, we have defined a programmatic focus on integrating math into everyday experiences to build a sense of enjoyment and familiarity with the subject for kids from an early age. Zeno will focus on the following four key areas for the next three fiscal years (Sep 2015 through Aug 2018):

- **Programs: Expand offerings in Early Learning and family engagement.** Expand reach of early learning programs to work with more family members, teachers, and early learning providers to establish an early relationship with math for the kids in their care. Provide opportunities for elementary aged children and their families to build confidence and skills in math, ensuring every child has the opportunity to be curious, creative, and joyful learners for the rest of their lives.
- **Community: Serve those with greatest needs.** Focus our efforts and resources on communities most in need of math resources, defined by a combination of limited economic resources and low math achievement.
- **Resources: Invest in and regularly evaluate programs to ensure lasting impact.** Evaluate current programs and improve delivery to ensure programs have a deep and lasting impact that can be demonstrated through qualitative and quantitative methods of measurement.
- **Advocacy: Promote the value of joyful math education for children and their families.** Work to become a stronger voice in our community to encourage incorporating math into family life from a young age. Focus on the early learning through elementary school continuum to create a culture of joyful engagement with math in our community.

THE PROBLEM WE ADDRESS

Zeno provides programs and resources that address the opportunity gap in math in our region. Many children in Washington are not currently receiving the level of resources and support they need to succeed in math from an early age. Data published by the Office of the Superintendent of Public Instruction for the 2015-2016 school year shows that only 61% of children in the state of Washington are arriving to kindergarten with the math skills typical of their age group, and only 55% of students are meeting 4th grade math standards. Unfortunately, even these low levels of success in math are not being equally achieved. WaKIDS reports that only 49% of low income students are entering with these skills. The discrepancies increase at the elementary level, where only 38% of low income students are meeting 4th grade math standards. Finally, Washington STEM reports that opportunity gaps in math and science in Washington State have not improved in over a decade and are the 12th largest in the nation. But by 2018, there will be a 24% increase in STEM jobs and every one of them will require a strong foundation in math.[i]



Source: Office of Superintendent of Public Instruction, (2013-2016), WaKIDS.

Zeno's programs aim to reverse these alarming trends and ensure all children have the opportunity to succeed in math. Research indicates a strong correlation between positive learning environments and academic success. DeWitz, Woolsey & Walsh found that "when students receive positive messages from others, their self-efficacy, or their measure of their ability to complete tasks and reach goals, increases" (2009). Further, Early learning math skills have been shown to be "more predictive of general scholastic achievement than language, attention span, or social skills" (Duncan et al 2007). Free play is critically important in healthy, normal child development, and building a child's foundation for math is no exception. Studies show that the use of game-based curriculums with at-risk preschoolers significantly improved achievement and narrowed achievement gaps between at-risk and not at-risk preschoolers (Baroody et al 2009).

Zeno aims to make math accessible, engaging, and enjoyable, resulting in improved math confidence and competence early in life. If we want everyone to succeed in math, we must encourage children, families, and teachers to explore math in ways that are meaningful to them and emphasize its relevancy beyond the classroom. By engaging families and care providers and encouraging a relationship with math from an early age, Zeno will ensure every child has the opportunity to build a positive relationship with math, opening up a future of truly infinite possibilities.

VISION AND MISSION

Vision: A world where everyone knows they can do math.

Mission: Increase children's competence and confidence in math with fun and engaging activities. We serve early learners and elementary school-aged children in the communities with the greatest need.

GUIDING PRINCIPLES

SERVE COMMUNITIES WITH THE GREATEST NEED. While we would like to deliver our programs to all children, we also know that we have limited resources. Therefore, we will focus our programs in communities that need us the most, which we define as:

- Communities where a majority of incoming students are not kindergarten ready based on Washington Kindergarten Inventory of Developing Skills (WaKIDS) math scores, or
- Schools in which students are not meeting state average on 4th grade standardized math assessments, and
- Communities at an economic disadvantage, where area schools reflect a 70% or higher Free and Reduced-Price Lunch Rate (FRPL) as reported by Washington state's Office of the Superintendent of Public Instruction (OSPI).

In order to accelerate the learning process in the pilot phases of our programs, we will favor working with schools and community organizations in which:

- The organization already has a strong existing tie to families as well as existing processes to engage and deliver training and materials to families; and
- Our programs play a unique and measurable role in increasing math literacy, so that we can clearly and easily determine their ongoing impact; and
- The partnering school or community organization is able to quickly engage with us on programs on a scale that promises demonstrable impact on math culture.

CONCENTRATE GEOGRAPHICALLY. While our ambitions are for state-wide and national delivery of Zeno programs, for the period of this strategic plan, Zeno will engage schools and community organizations in the Greater Seattle area, with a focus to initially align with The Road Map Project, a community-wide effort aimed at improving education in South King County and South Seattle.[1] Zeno will explore potential partnerships outside the Greater Seattle Area by evaluating whether:

1) A program or set of programs has the capability to scale to a larger region
2) The geographic expansion supports or improves Zeno's brand and resources
3) The opportunity improves the foundation and effectiveness of the program
4) The opportunity is financially supported and Zeno has the resources to support the expansion in addition to Zeno's existing operations.

WORK WITH ADULTS IN KIDS' LIVES. We believe the most impactful way to address the immediate impediments to a positive math culture is through working with the adults in kids' lives rather than directly with the kids themselves. We reach children through their families, caregivers, community members and teachers. We do this by implementing a train the trainer model, training community members that already have relationships with families in their communities (such as classroom teachers and home visitors). We believe that these community members are the most capable of understanding how to best reach their families.

OFFER PROGRAMS THAT ARE EVIDENCE-BASED AND MAKE A DEEP AND LASTING IMPACT. While we want and need to be innovative as we develop new programs, we also want to be research-based: what we do needs to be grounded in compelling evidence that it will achieve impact. Our programs will be based on evidence either obtained by Zeno or established both other respected researchers in the field which validates that what we are doing will lead to a positive outcome. We use the results of our evaluation to show impact and to direct refinements and improvements.

ENSURE DESIRED RESULTS ARE MEASURABLE. We need to have the ability to measure our results in some way to inform our work. Not just outputs (e.g. # of workshops, # of trainings) but outcomes (e.g. workshops that lead to improved attitudes and skills) and impact (e.g. the degree to which the outcomes can be attributable to the work the organization does rather than other factors). We know these are all difficult to measure, but will build measurability into all of our programs in their design phase.

REMAIN COMMITTED TO MAKING MATH FUN. At Zeno, we've always been dedicated to making math engaging and fun, and to building a positive math culture in order to fulfill our mission. We are committed to maintaining these elements of our organization's approach and identity.

MAINTAIN A RELATIONSHIP-BASED APPROACH. Our best work happens when we develop trusting relationships with the teachers, parents, and kids in the communities we serve. While other programs

[1] From the Project Overview page of The Road Map Project, http://www.raodmappproject.org/the-project/project-overview

offer important work through online and virtual technology as well as short-term/one-time interventions we believe Zeno is best positioned to be effective if we work with people in the context of their communities over time – wherever kids and families live, play, work and learn. Zeno's programs primarily utilize a model of training a community partner (a community based organization or school, for example) to utilize and deliver our training, tools, and games. Our work builds positive math cultures and creates math education advocates within communities.

LEVERAGE OUR WORK THROUGH STRATEGIC PARTNERSHIPS. This region has many excellent, experienced early learning and community organizations. Zeno will partner with them for program delivery to leverage the collective impact we can have on the communities we serve.

ADVOCATE FOR MATH LITERACY. Engage with media, public officials, legislators and business leaders to promote math literacy activities in homes and communities. Partner with existing advocacy organizations, such as Youth Development Executives of King County (advocacy for children age 5 to young adult), Early Learning Action Alliance (Early Learning advocacy), and Thrive (Early Learning advocacy). Strive to have math literacy programs publicized and funded on par with language literacy programs.

IMPLEMENTATION PLAN

Introduction: Zeno's programs support a continuum of learning from preschool through elementary school. MathWays for Early Learning has the deepest level of family engagement, with games and tools provided to an enrolled set of families throughout a school year. Our Elementary School offerings typically have a lighter level of engagement, with either a one-time event a three-night series for a given school (spread across a school year).

Early Learning:

> **MathWays for Early Learning**: Families and caregivers of preschoolers receive games, tools and training to encourage early math exploration and math play, giving kids the opportunity to arrive better prepared for kindergarten. Through our partner organizations (community based organizations like Parent Child Home Program or preschool settings such as Head Start classrooms), we distribute Math Game Kits to families and provide support around using math in the home and in everyday life. We also provide professional development for early learning providers**.**

Elementary:

> **Family Math Nights**: Zeno provides a series of math night events that give families an opportunity to learn and play board games along with strategies to incorporate math into daily life. Each partner hosts three Family Math Nights over the course of the school year, with each event building on concepts presented at the previous Math Night. The format is family game play (typically commercial board games) followed by a separate parent education session that

takes place away from where students continue to play the games. These workshops provide families with the tools that encourage continued positive math experiences at home.

Math and Science Mashups: Zeno partners with the Pacific Science Center to provide an opportunity for elementary school families to explore the role of math and science in everyday life through a variety of hands-on activities in their school's gym or cafeteria. We have a final year of funding for 10 Mashups in the Road Map Region in for the 2016-2017 school year.

MathFest: Zeno hosts two annual community-wide events that gather kids and families to explore math in unique and unexpected ways. Families have the opportunity to visit a variety of game stations where they can build their math confidence and skills in a supportive and playful environment. We host one MathFest in Seattle (typically Rainier Valley) in the Fall and another in Kent in the Spring.

Discontinued Programs as of August 2016:

Nature Passport App: This partnership with IslandWood outdoor learning center ended August 2016 due to challenges faced in building a mobile application for families.

Mathematician in Residence: We made the difficult decision in January 2016 to discontinue this program, in order to focus our limited resources on programs where we see greater momentum and opportunity.

OUTPUT, OUTCOME AND IMPACT GOALS

Early Learning

	FY 2016	FY 2017	FY 2018
Outputs	5-10 Early Learning sites/classrooms, ~300 children	Total of 10-15 classrooms, 2-6 PCHP sites, 350-650 children	20-30 classrooms 5-10 PCHP sites, 750-1250 children
Impacts & Outcomes	• Explore possible channels for distribution of materials/services • Execute initial phase of evaluation plan • Increase facilitator, caregiver, and child exposure to foundational math concepts through use of Zeno EL resources	• Establish preferred channels and partners • Increase understanding of foundational math concepts (facilitator, caregiver, and child) • Increase facilitator and caregiver math advocacy	• Increase shared caregiver-child math experiences • Increase effective facilitation of integrating math activities in the home and increase kindergartners' math readiness • Expand geographic reach • Track WaKIDS scores to assess impact on kindergarten readiness

Note: For Output calculations, assumed 20 students per preschool classroom and 50 children per PCHP site (Parent Child Home Program for Atlantic Street Center, for example).

Elementary/Family

	FY 2016	FY 2017	FY 2018
Outputs	6-12 Family Math Night Workshops, 30+ families per workshop 10 Mashup events, 50 kids and family members per event 2 MathFest Events, 500+ kids total	12+ Family Math Night Workshops, 30+ families per workshop 10 Mashup events, 50 kids and family members per event 2 MathFest Events, 500+ kids total	12+ Family Math Night Workshops, 30+ families per workshop 10 Mashup events, 50 kids and family members per event 2 MathFest Events, 500+ kids total
Impacts & Outcomes	Improve family engagement and increased encouragement of math activities in the home	Improve family engagement and increased encouragement of math activities in the home	Improve family engagement and increased encouragement of math activities in the home

FINANCIAL STRATEGY

Zeno has been fortunate to have a generous donor, who over the years has provided the majority of the funding for Zeno operations. There is no assurance, however, that this contribution will continue in the future. We've therefore built a conservative financial strategy that assumes discontinuation of this donation and works to build sustainability of our organization.

By constraining operating expenses over the past few years, we have built up operating cash reserves and established a $200,000 Board Reserve. On the expense side, we are planning to increase expenses in fiscal years 2016 and 2017 as we invest in evaluation and development of programs. This plan assumes that we will not be able to immediately increase income rapidly enough to completely replace the major donor, and that our cash reserves will be diminished initially, followed by a planned break-even of income and expenses. While we could make more significant short-term cuts in our expenses, we are choosing to utilize the existing cash reserves in order to invest in developing and deploying the MathWays for Early Learning program and aligning our programs with current research and producing valid results on how we are impacting classrooms and communities.

On the revenue side, our move into early learning opens up additional funding opportunities, as does exclusively serving communities furthest from opportunity. Our plan is to build a more diversified portfolio of funders and corporate partners.

	FY 2011	FY2012	FY2013	FY2014	FY2015	FY 2016	FY2017	FY2018
Income	$738,000	$847,000	$839,000	$876,000	$815,000	$894,000	$580,000*	$696,000*
Expense	$725,000	$814,000	$772,000	$825,000	$772,000	$841,000	$983,000	$900,000
Operating Net	$13,000	$33,000	$67,000	$51,000	$44,000	$53,000	($403,000)	($204,000)
Year-End Operating and Board Reserves	$641,000	$674,000	$741,000	$781,000	$913,000	$923,000	$501,000	$297,000

* Assumes discontinuation of the major donor mentioned above starting in FY17.

Note: Zeno's fiscal year runs from September 1 through August 31

[iv] Washington STEM. (2013). *Washington STEM Fact Sheet*. Seattle, WA. Retrieved from http://www.washingtonstem.org/STEM/media/Media/Resources/WA-STEM-Fact-Sheet-January2014.pdf