



# Academic Return on Investment (A-ROI)

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# Agenda

- A-ROI Overview
- A-ROI System Steps
- Resources and Contacts



# A-ROI Overview





# **Return on Investment Definition (Business and Industry)**

**Return on investment describes the expected gains (i.e., returns) per unit of cost (i.e., investment) of a variety of potential actions.**

A vertical photograph on the left side of the slide shows the back of a person's head and shoulders. They are looking at a tablet device held in their hands. The tablet screen is dark. The person has short brown hair and is wearing a grey sweater over a blue collared shirt.

# Return on Investment Definition (Academic)

**Ensuring alignment of school system resources to strategic priorities so that every school succeeds for every student**



# A Consolidated Definition

**A-ROI is a conscious and collaborative process by which system resources (i.e., educational investments) are identified and weighed in cost and effectiveness for stronger alignment to strategic goals for maximum outcomes.**

# System Strategy A-ROI: Five Key Steps

- **Identify the core need**
  - What fundamental student performance needs are we focusing on, and what's our theory of change for addressing it?
- **Consider a broad range of investment options**
  - What are the investments we currently make to address this need, and what else could we do?
  - What does the evidence state?
- **Define ROI metrics and gather data**
  - What are the relative returns (costs weighed against benefits) to the set of current/potential options?
- **Weigh investment options**
  - What other factors do we need to consider, in order to select from among the options?
- **Make investment decisions**
  - How can we free resources to do what we want to do?

*Source: Frank and Hovey, 2014*





# General Budgeting Categories

- **Personnel**
  - Salaries and fringe
  - Retention investments – increased pay for extra duties, etc.
- **Professional Development**
  - Meeting local educational agency (LEA) planning and school improvement initiatives
  - Professional development (PD) that weaves within all other PDs
- **Equipment, Supplies, and Materials**
  - Consider the expenditures and complementary
- **Infrastructure and Capital Gains**





# The Formula (Scale for Weighing):

$$\text{A-ROI} = \frac{(\text{Increase in Student Learning}) \times (\text{Number of Students Helped})}{\$ \text{ Spent}}$$



# A-ROI: Get Started by Identifying the Team

- **Suggested members include:**
  - Data analyst
  - Academic supervisor
  - Fiscal director/fiscal professional
  - Program or lead teacher
  - School board members and/or other community stakeholders (consider their skills)
  - Team leader and communicator



# A-ROI: Questions to Consider...

- What is our system's spending culture?
- Do we commit to traditional expenditures from year to year?
- Are the school board and school system's spending culture truly devoted to student-centered decisions?
- What does the culture value?



# A-ROI System Steps

## Step 1- Identify a Core Need

# A-ROI: Identify the Core Need

## Step 1

- **Identify a program and performance target:**
  - Start with one program.
  - What is the need?
  - What is the theory of action?





# A-ROI System Steps

## Step 2- Range of Investments (Interventions)

# A-ROI: Range of Investment Options

## Step 2

- **Identify current strategies (investment options) that are actively supporting the program:**
  - Identify all current strategies and program resources.
  - Collect current available data related to the program.
  - Align current available data to each strategy.
  - Identify new strategies or investments.



# A-ROI: Range of Investment Options

## Step 2

- **Be creative and be open to *new strategies* and new ways of supporting the program:**
  - Review the identified root causes of the need.
  - Are there strategies already employed under other programs in the LEA?
  - Review ESSA evidence (Do your research!)
  - Gather ideas from natural collaborations with other LEAs and state-sponsored events.
  - Revise or improve upon past strategies that are no longer employed.



# A-ROI System Steps

## Step 3- Defining the Metrics / Data

# The Formula (Scale for Weighing)

$$\text{A-ROI} = \frac{\text{(Increase in Student Learning)} \times \text{(Number of Students Helped)}}{\$ \text{ Spent}}$$





# A-ROI: Define ROI Metrics and Gather Data

## Step 3

- **Effectiveness and Impact of a Strategy:**
  - When gathering and applying data to weigh a strategy, consider the following:
    - Is the data valid for this strategy?
    - If exploring data for a new strategy, can fidelity be replicated in your LEA?

# **A-ROI: Define ROI Metrics and Gather Data (Effectiveness and Impact of a Strategy)**

- **Sources of data for weighing strategies (i.e., investment options):**
  - Teacher effectiveness data
  - Math and English Language Arts (ELA) benchmark data
  - Report card data
  - Graduation rates data
  - Non-cognitive data (e.g., attendance, disciplinary data)
  - Early Post-Secondary Opportunities (EPSOs)
  - Qualitative data (e.g., surveys, professional learning community (PLC) notes, focus groups minutes)



# Four Places to Find Effective Data

- **Natural or Engineered Controlled Tests**
  - Example: compare co-teaching courses against courses that are individually taught by pre- and post-test data.
- **Evidence Pockets:**
  - Use current data sources to isolate new variables.
  - Example: Use available reading data to find teachers who are successful; then, interview and observe their methods.
- **Common Formative Assessments:**
  - Example: LEA- and state-made assessments, benchmark assessments, etc.
- **ESSA evidence research/educational research**
  - May provide data ideas.
- ***Important:* Never assume the success of a strategy; test it.**

# The Formula (Scale for Weighing)

$$\text{A-ROI} = \frac{\text{(Increase in Student Learning)} \times \text{(Number of Students Helped)}}{\$ \text{ Spent}}$$



# A-ROI: Define ROI Metrics and Gather Data

- **How many students are impacted or expected to be impacted by the strategy?**
  - Student subgroups impacted directly by the strategy.
  - Student subgroups impacted indirectly by the strategy.





# The Formula (Scale for Weighing)

$$\text{A-ROI} = \frac{(\text{Increase in Student Learning}) \times (\text{Number of Students Helped})}{\text{\$ Spent}}$$



# A-ROI: Budgetary Data Collection

- **How much does the strategy cost?**
  - Unthread budgets and budget cost lines to apply the total cost of a strategy.
  - Per pupil cost will be beneficial.



# A-ROI System Steps

Step 4- Weigh Investment Options;  
Do the math!



# The Formula (Scale for Weighing)

→ **A-ROI** = 
$$\frac{(\text{Increase in Student Learning}) \times (\text{Number of Students Helped})}{\$ \text{ Spent}}$$





# Weigh Investment Options

## Step 4

- As the ROI is calculated for each strategy and is ranked in order from highest to lowest, consider the following:
  - If precise numbers are not available for the formula, the ROI team can discern the likeliness of strategy effectiveness by agreeing on the strategy as a high, medium, or low returner.
  - Consider unintended consequences, conflicts, or costs of ranked strategies.
  - Consider the interactivity and symmetry of the strategies.
  - Evaluate the consistency of the alignment of identified strategies with the overall theory of action.

# Example 1

$$\text{A-ROI} = \frac{(\text{Increase in Student Learning}) \times (\text{Number of Students Helped})}{\$ \text{ Spent}}$$

## Strategy #1: Push-in model

- An Educational Assistant (EA) serves 5 classrooms per day, helping a total of 15 students.
  - EA costs \$20,000 per year
  - 15 students are impacted
  - Increase in student learning is at a **constant** (100%)
  - **0.075%** =  $100\% \times 15 / 20,000.00$  (**Note:** A-ROI was multiplied by 100 for percentage conversion)

## Strategy #2 Pull-out model

- The same EA could serve 5 students per period through a pull-out strategy.
  - EA costs \$20,000 per year
  - 25 students are impacted
  - Increase in student learning is at a **constant** (100%)
  - **0.125%** =  $100\% \times 25 / 20,000$  (**Note:** A-ROI was multiplied by 100 for percentage conversion)







# Example 2

## Strategy #1: LynnXL math on-line program strategy

- Cost: \$ 6,000/year
- Students impacted: 120
- Student learning data (correlative): 20% increase in math scores
- A-ROI = **.40%** =  $20\% \times 120 / 6,000$  (multiplied by 100)

## Strategy #2: HenryMathforFun

- Cost: \$ 5,500/year
- Students impacted: 240
- Student learning data: (ESSA evidence 10%, overall increase in math)
- A-ROI = **.44%** =  $10\% \times 240 / 5,500$  (multiplied by 100)



# Return on Investment

## Return on Investment

<b>Area</b> <i>How did you spend your money?</i>	<b>Alignment to Goals/Focus</b> <i>What SIP goal did this support? What was the reason for this support?</i>	<b>Actual Cost</b>	<b>Data Sources and Results</b> <i>What data did you use to support the SIP goals? What were the results? Is there any proof that any implementation's impact on data? If programs / practices were purchased, what is the evidence-based tier?</i>	<b>Reflections</b> <i>Based on SIP goals and for data collected, what are the implications for future planning? Did this work? Why or why not? Is this still a viable purchase?</i>
Personnel				
Supplies and Materials				
Professional Development				
Programs				
Equipment				
Contracted Services				

# A-ROI System Steps

## Step 5 – Make Investment Decisions

# Make Investment Decisions

## Step 5

- **Develop a Program Plan of Action:**
  - Consider overall savings of identified program strategies.
  - Consider unintended consequences, conflicts, or costs of ranked strategies.
  - Consider the interactivity and symmetry of the strategies.
  - Evaluate the consistency of the alignment of identified strategies with the overall theory of action.



A person's hand is visible on the left side of the image, pointing towards a table. The table is covered with several documents and charts. One document features a bar chart with a color gradient from yellow to blue. Another document shows a circular diagram with four colored segments (green, red, blue, orange) around a central point. There are also some tables and other documents scattered on the table, some with pink sticky notes.

# Going Forward and Onward...

- Conduct new A-ROI on all programs.
- Continue to review and update program costs.
- Programs that are **expensive** are prime targets.
- Create clear rules/processes to guide the “where, how, and why” of the flow of dollars in the LEA and school budgets.

# Resources and Contacts





# Resources

- [Academic ROI: What Does the Most Good?](#)
- [ERIC: an online library of education research and information and a platform to research various topics on the A-ROI process](#)
- [Issues around Using Academic Return on Investment \(A-ROI\) for Informing and Improving Decisions. Part I: Validity](#)
- [Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments](#)
- [Return on Investment in Education: A “System-Strategy” Approach – Frank and Hovey, 2014](#)
- [Spending Money Wisely: Getting the Most from School District Budgets](#)
- [What Works Clearinghouse](#)

# FPO Contacts

- [ESEA Divisional Coordinators](#)
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# Thank You!

Contact Info or Questions?

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