



EVALUATION REPORT

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Infusionomics[™] Program Year 3 and Summative Evaluation

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THE BERG GROUP

EXECUTIVE SUMMARY

The StreetSchool Network in conjunction with The Powell Center and other partners adapted an economic literacy program to meet the needs of underserved, urban students. Project personnel believed this *Infusionomics*[™] program would benefit students by enabling them to understand economic concepts that affect their lives and by increasing academic engagement and achievement. Interested in understanding the impact of *Infusionomics*[™] and in evaluating the effectiveness of the implementation approach, the StreetSchool Network contracted The BERC Group, Inc., to consult on evaluation of the program. Members of The BERC Group assisted StreetSchool personnel in designing an evaluation and in conducting evaluation activities during a three-year implementation period for seven schools. This report summarizes the findings from those evaluation activities and provides formative and summative feedback regarding program implementation and impact.

Schools participating in evaluation activities received a site visit each spring from one or more staff members of the StreetSchool Network and/or The BERC Group. These site visits consisted of focus groups or interviews with school leaders, the teacher leader for the *Infusionomics*[™] program, teachers, and students. In addition, teachers submitted quarterly *Teacher Reflection* forms with implementation data. Staff members from the StreetSchool Network and The BERC Group collaborated in developing instruments to measure student outcomes, culminating in a pre/post questionnaire to assess student self-perceptions. Problems with administration in Year 3 limit interpretation of that data.

During the three-year implementation period, the *Infusionomics*[™] program underwent several phases of improvement. Program leaders chose to respond to the needs for change as they arose, implementing program improvements as needed rather than waiting for the conclusion of the evaluation period. From an evaluation stand-point, this approach created two primary challenges. First, year-to-year comparisons are difficult to make when program content, implementation, and instrumentation evolve over time. Second, because of ongoing development, the program has not been fully evaluated in its current form. These challenges are common when evaluating short-term grants supporting new programs, particularly if program developers are committed to program improvement and are responsive to formative feedback.

Implementation of the *Infusionomics*[™] program requires schools to sequentially phase in program components over a three-year period, infusing the program philosophy and activities into the school. Teachers across disciplines learn a set of economic concepts, or Keystone Economic Principles[™], which they match to their curricula and integrate into lessons. The program components range from brief mini-lessons in the classroom to school-wide token economies and student businesses. All schools implemented the lessons, including lessons based on the Keystone Economic Principles[™] and the Financial Literacy lessons. The extent to which teachers integrated these lessons into their regular curricula varied, however. Several factors affected the extent of integration, including teachers' confidence in teaching the economic concepts, mastery of their own content area and curricula, and their pedagogical approach. In many ways, this was the most challenging aspect of the program for a number of teachers.



Each school implemented some form of a token economy using *Economis*, an online student economy, or another system. Schools with the most effective token economies had school-wide implementation, student involvement in management, and designated administrative time. They also tended to be integrated with overall school goals. A number of behaviors were commonly incentivized across schools, such as being punctual, wearing the school uniform, attaining academic or achievement goals, performing chores, maintaining positive behavior, and completing homework. Challenges encountered to student economies included lack of student access to computers, inconsistent staff responses to behavior, lag time in filling student orders at the “store,” lack of desirable incentives, and lack of time to enter student data. Implementation of other key program components followed similar uneven patterns. Student businesses ranged from school-wide implementation to partial involvement. Instruction in *Skills for the 21st Century Marketplace*TM varied across classrooms, and some teachers did not address them at all during this project. Each school had a unique pattern of successes and commitments for implementing the various program components. This suggests that the characteristics of a given school interacted significantly with the demands of and approach to implementation with the array of program components.

To determine whether a program yields its targeted outcomes, it must be implemented with fidelity. The uneven implementation of *Infusionomics*TM during the evaluation period means the full impact of this program is still not fully known. However, there are clear indicators of positive effects at the school, teacher, and student levels in those schools with higher levels of implementation.

Where there was school-wide commitment to the philosophy of the *Infusionomics*TM program and to implementation of specific components, there was also a shared language and common expectations. This had the effect of unifying the school and, in some cases, *Infusionomics*TM became central to the school’s identity. In these schools, participation in *Infusionomics*TM had a positive impact on teacher practices. In order to meet *Infusionomics*TM program requirements, teachers found they needed to collaborate, review their curricula, and consider their approaches to instruction. They shared lesson ideas and materials and assisted each other in understanding the economic concepts. Some sought additional professional development in instructional frameworks. Thus, program adoption encouraged teachers to engage in known best practices for educators. In other schools, however, teachers worked in isolation, were less comfortable with the economic concepts, and did not necessarily have a clear vision of an integrated lesson.

Where *Infusionomics*TM was more highly integrated into the school, there was evidence of students developing economic knowledge, changing economic attitudes, and more closely monitoring their own behavior. Students used common economic language and were able to describe the basic economic concepts and provide examples from their lives. They developed a sense of efficacy and growth through active participation in the token economy or school business. Staff members reported higher levels of student responsibility and autonomy, anger control, and trust. Staff members at these schools believed the program influenced a variety of student behaviors, including decision-making, planning, and financial activities. They believed the program increased students’ ownership of their behaviors, perceptions of efficacy, and long-term plans.

The evaluation also documented contextual factors, issues pertaining to sustainability, and a number of lessons learned through the implementation process. These considerations will be useful in continued program development and in preparing future schools for program adoption.

Finally, throughout the three-year implementation period, project staff engaged in ongoing program improvement. Their consistent and close scrutiny of the program's strengths and challenges at each stage enabled them to address concerns as they arose. Teachers and administrators appreciated the willingness of project staff to listen to their concerns and to respond to these challenges. By the end of Year 3, a number of program improvements were in place and project leaders had considerable knowledge of the factors influencing implementation and outcomes. This three-year implementation project resulted in program improvement and a deeper understanding of the factors that make it work.

StreetSchool Network *Infusionomics*TM Program Year 3 and Summative Evaluation

INTRODUCTION

The StreetSchool Network provides Christian and community-based schools an educational model for at-risk youth, with a focus on education of the “whole student.” In addition, they provide consultation and support on school programming around “academic rigor, career preparation, life-skills building, [and] economic literacy”¹ to their nationwide network of member schools. Nationwide, the StreetSchool Network strives to “to meet the challenges of youth living in at-risk environments by developing a network of schools that provide a personalized education, a moral code, and tools for self-sufficiency.”² In 2008, the StreetSchool Network embarked on an initiative with several partners to develop financial literacy education for schools serving at-risk youth. The ele:Vate (Economic Literacy Education: Vital Assets for Transformation and Empowerment) Initiative is a collaboration among the StreetSchool Network, the Powell Center for Economic Literacy, the Sagamore Institute, Central Ohio Youth For Christ, and Entrenuity. The purpose of the initiative is “to educate and engage teachers and after-school leaders in teaching economic thinking, concepts, financial literacy skills, and entrepreneurship, initially to low-income youth, but also to a wider audience attending both public and independent schools, nationwide.”³ Specifically, the ele:Vate mission is to “equip faith-based organizations working with urban youth to:

- Recognize the value of economic literacy education
- Effectively teach principles of economic literacy and financial life skills
- Excite kids and teens about entrepreneurship.”⁴

Background


Working with personnel from the Powell Center, StreetSchool staff members adapted an Economic Literacy program, originally designed for a suburban secondary preparatory school, to meet the needs of students served by the StreetSchool Network. The program, which incorporates financial literacy, entrepreneurship, and *Skills for the 21st Century Marketplace*TM, is entitled *Infusionomics*TM. Program partners believed *Infusionomics*TM would benefit students by enabling them to understand the economic concepts affecting their lives and by increasing academic engagement and achievement. They piloted *Infusionomics*TM lessons in several schools in 2004-2008 and developed an implementation format during 2008-2009. With external grant funding, the program was then implemented in seven schools over three academic years (2009-2010, 2010-2011, 2011-2012). In

¹ <http://www.streetschoolnetwork.org/index.asp>

² <http://streetschoolnetwork.org/About/the-solution.html>

³ http://infusionomics.com/program_overview/about-infusionomics/

⁴ http://www.elevateurbanyouth.org/v2/new/about_Us.htm



2011, the grant support shifted to the Sagamore Institute, as did the support of the project director and managers.

Interested in understanding the impact of *Infusionomics*TM as well as the implementation methodology, the StreetSchool Network contracted The BERC Group, Inc., to consult on evaluation of the program. During 2009-2010, members of The BERC Group assisted StreetSchool personnel in designing an evaluation and in conducting evaluation activities for Year 1 (2009-2010) of implementation. StreetSchool program staff members used the evaluation findings for program improvements, revising the curriculum, program delivery, and evaluation tools for Year 2 (2010-2011) and Year 3 (2011-2012). The BERC Group continued to collaborate with program leaders on evaluation activities in Years 2 and 3.

It is important to note that the funding base of *Infusionomics*TM changed during the course of the implementation and evaluation period. Due to the drop in investment values in 2008 in their portfolio for grants, the supporting foundation significantly reduced funding by 40% in Years 2 and 3. This had an impact on the number of schools that were originally planned to participate in the grant and reduced travel and incentives budget lines during Years 2 and 3.

The *Infusionomics*TM Program

Leaders of the ele:Vate Initiative and *Infusionomics*TM describe the program as a pedagogical approach, not simply a curriculum. Through *Infusionomics*TM, Keystone Economic ConceptsTM are infused into the existing curriculum and functioning of the school. The program is intended to be adopted school-wide, thereby creating common understanding and becoming part of the culture. It is integrated into the school's discipline approach and across content areas. Fundamentally, the program is intended to encourage students to become aware of choices they make, the impact of those choices, and their role in managing their future.

Over the course of the three-year evaluation period, leaders adjusted program content and structure, the program implementation process, and the evaluation instruments. They made these changes in response to feedback from school staffs, the evaluation results, and their critical observations in the schools. Thus, the program evolved over the course of the grant period. Key program changes included:

- Organizing the original nine Keystone Economic PrinciplesTM into quarterly themes to increase cohesion among lessons, as well as latitude for teachers in implementing the lessons
- Augmenting the original program components by adding lessons in Financial Literacy and the *Skills for the 21st Century Marketplace*TM, concepts related to character development, an implementation rubric, and an Economis (token economy) simulation
- Adjusting program deliverables to a school's capacity to improve fidelity of implementation
- Expanding and revising teacher tools to include:
 - Concept-matching grids to aid curriculum planning and connecting the economic concepts and skills to the existing curricula
 - Online courses in implementation and in the token economy

- Online forums for exchanges among teachers
- Implementation guides for three school levels (K-2, elementary, secondary)
- Professional development pertaining to integration and social justice/poverty
- Teacher evaluation forms
- Pre/post questionnaires for students

The program is infused into a school over a three-year period, with each year adding significant program components. The sequential focus is as follows: Year 1 – Infusing Keystone Economic Principles; Year 2 – Financial Literacy, and; Year 3 – *Skills for the 21st Century*TM with a focus on Entrepreneurship. Year 1 includes staff training in economic principles and preparing for the activities of Years 2 and 3. During Year 2, the staff deepens infusion of economic literacy throughout the schools and implements Economis, an online virtual economy, and stand-alone Financial Literacy mini-lessons. As school staffs continue these activities during Year 3, they also develop entrepreneurship through classroom and school-wide special projects, integrating *Skills for the 21st Century*TM to support student entrepreneurial efforts.

As noted in previous reports, the original implementation model was structured around nine Keystone Economic PrinciplesTM delivered in monthly succession throughout the school year. During Year 1, schools used this monthly implementation model. However, observations by program staff and feedback from schools prompted program leaders to restructure the principles to a quarterly model for Year 2. This model was structured around four unifying themes, prioritizing the principles and permitting teachers to work with the principles for longer periods of time. It also increased flexibility for working with more complex concepts and for teachers to integrate them into classroom curricula where they fit best. In the revised quarterly model, five of the original principles serve as key concepts, which anchor the program. The remaining four principles are considered optional complementary concepts. Table 1 presents the quarterly themes and the associated key and complementary concepts. These program changes necessitated restructuring materials, formats and processes for schools progress reports, and assessment tools. Program leaders also updated a tool that helps teachers align and integrate lessons by matching concepts from their content curricula with *Infusionomics*TM principles.

Table 1.
Quarterly InfusionomicsTM Curriculum and Key Economic PrinciplesTM (KEP)

Theme	Key Concepts	Complementary Concepts
Choices	KEP 1 - <i>We all make choices</i> KEP 3 - <i>All choices have consequence</i>	
Cost	KEP 2 - <i>There ain't no such thing as a free lunch</i>	KEP 7 - <i>Economic thinking is marginal thinking</i>
Resources	KEP 6 - <i>Do what you do best, trade for the rest</i>	KEP 8 - <i>Quantity and quality of resources impact living standard</i> KEP 4 - <i>Economic system influences choices</i>
Incentives	KEP 5 - <i>Incentives produce predictable responses</i>	KEP 9 - <i>Prices are determined by market forces</i>



In each school, a designated lead teacher receives training, facilitates implementation, and serves as the point person for interactions with external program staff. Program staff members provide ongoing support and technical assistance at each school through direct support for lead teachers, presentations to staffs, frequent email communication with the schools, and other forms of support. There is a variety of materials and resources (e.g. training videos, optional additional lessons) available to teachers.

EVALUATION OVERVIEW

Grant personnel worked in consultation with members of The BERC Group to structure and conduct an evaluation of the program. The following questions guided evaluation of program activities throughout the grant period:

1. To what extent do the schools and the participating individual teachers implement the *Infusionomics*TM program with fidelity?
2. To what extent does student economic knowledge change over time?
3. To what extent do student perceptions of economic attitudes and behaviors change over time?
4. To what degree can changes be attributed to the professional development provided in each school?
5. To what extent is implementation correlated with teacher and student outcomes?
6. What contextual factors influence implementation and impact?
7. Are there school practices or individual teacher practices that emerge as highly effective or, at the end of the evaluation, what are the lessons learned?
8. To what extent are the changes sustainable?

In Year 1, eight schools were initially scheduled to implement *Infusionomics*TM and to participate in evaluation activities. Seven schools ultimately participated in evaluation activities (see Table 2) over the course of the grant. In addition to *Infusionomics*TM, these schools have in common their membership in the StreetSchool Network and their commitment to a student-centered education.

Table 2.
Schools participating in evaluation activities

School Name	Location	Grade Levels
Brinkley Heights	Memphis, TN	Elementary
Cornerstone Academy	Chicago, IL	Secondary
Forest Park Street School	Forest Park, GA	Secondary
Lighthouse Academy	Grand Rapids, MI	Secondary
Harambee Christian	Columbus, OH	Elementary
Logan Hope	Philadelphia, PA	K-8
Omaha Street School	Omaha, NE	Secondary

Evaluation Activities

Throughout the grant period, StreetSchool Network staff members received consultation from and worked in collaboration with The BERC Group to gather and interpret qualitative and quantitative data. Schools participating in evaluation activities received a site visit each spring from one or more staff members of the StreetSchool Network and/or The BERC Group. These site visits consisted of focus groups or interviews with school leaders, the teacher leader for the *Infusionomics*TM program, teachers, and students. In addition, StreetSchool personnel provided teachers a *Teacher Reflection* form to gather longitudinal implementation data. During the grant period, staff members from the



StreetSchool Network and The BERC Group collaborated in developing instruments to assist in measuring student outcomes. Details pertaining to the development of these instruments are available in previous reports. In addition to these activities, The BERC Group obtained updates on program development, implementation, and outcomes from project personnel.

It is important to note that the program has undergone considerable development and evolution during the grant period. Program leaders chose to respond to the needs for change and to implement program improvements as those needs arose, rather than waiting for the conclusion of the grant period. School staff members spoke positively of this level of responsiveness from program personnel. From an evaluation stand-point, this approach creates two primary challenges. First, year-to-year comparisons are difficult to make when program content, implementation, and instrumentation evolve over time. Second, because of ongoing development, the program has not been fully evaluated in its current form. These challenges are common when evaluating short-term grants supporting new programs, particularly if program developers are committed to program improvement and are responsive to formative feedback.

EVALUATION RESULTS

This evaluation studied the implementation and impact of the *Infusionomics*TM program at participating schools, as well as contextual factors and promising practices associated with the initiative.

Program Implementation

Evaluation Question 1: To what extent do the schools and the participating individual teachers implement the InfusionomicsTM program with fidelity?

Schools participating in this grant phased in *Infusionomics*TM program components over a three-year period. This included integrating the Keystone Economic PrinciplesTM into the regular curricula and adding Financial Literacy lessons, a token economy, a student business, *Skills for the 21st Century Marketplace*, and an annual special project designed to put economic principles into practice. Throughout the three-year evaluation period, implementation of these components varied notably across schools. Each school entered the program with different levels of preparation and resources and encountered different challenges, and these variables affected implementation levels.

*Infusionomics*TM lessons and activities are intended to be integrated into the curricula of other content areas, such as English or math, rather than presented as a distinct curriculum. Program leaders observed that the extent of integration varied with each school's pedagogical approach. Teachers and schools using instructional approaches that emphasize higher order thinking and active engagement were more likely to integrate *Infusionomics*TM concepts within their content area rather than present *Infusionomics*TM in stand-alone lessons. Schools providing professional development around effective instruction also had better success with integration. Notably, the program's emphasis on integration prompted some teachers to seek additional professional development around general instruction.

Integration was also a function of teachers' grasp of the economic concepts. Specifically, to effectively develop connections with their course content, they needed to understand economic concepts. Most teachers reported their understanding of economic concepts grew over time, and they became more comfortable teaching them toward the end of the grant period. One said, "I know the principles a lot better now after three years. That makes a difference." Another commented, "I think everyone understands that we are growing to become experts. At first, you bite off what you can chew."

In Year 2 of *Infusionomics*TM, schools phased in Financial Literacy mini-lessons. Unlike the lessons based on the Keystone Economic Principles, these lessons can be integrated into existing curricula or taught independently. Both students and teachers spoke positively of these lessons, and teachers found it easier to teach these stand-alone lessons than to integrate the lessons based on the Keystone Economic PrinciplesTM. Older students said they were very practical and immediately applicable to their lives. These lessons also built a critical foundation for students as they participated in other aspects of the program, such as the special projects and the student businesses.



Schools phased in a token economy during Year 2 of the program. Through *Infusionomics*TM, they have access to Economis, an online software program that supports student economies and hands-on financial literacy skills. Some schools had pre-existing student economies, which they maintained, while the remaining introduced Economis or a paper-based accounting system for a student economy. Across schools, a number of behaviors were commonly incentivized, such as being punctual, wearing the school uniform, attaining academic or achievement goals, performing chores, maintaining positive behavior, and completing homework. Several staff members noted that the student economies allowed them to more closely monitor student behaviors. For example, one administrator said student attendance data has become more accurate and up-to-date because of Economis.

In some schools, implementation of the student economy was universal. In others, implementation and effectiveness varied. The student economies appeared to be most effective when they were integrated with overall school goals and when staff members were “on the same page” in terms of program philosophy. These staff members underscored the need for consistent school-wide implementation, as well as consistent responses to student behaviors. Student participation in developing and administering the programs also increased engagement. They must understand the system and the behaviors that are incentivized and be able to regularly monitor their accounts. When this occurs, staff members report a higher level of student responsibility for their behavior and for managing their work and belongings. Challenges encountered to student economies included lack of student access to computers, inconsistent staff responses to behavior, lag time in filling student orders at the student “store,” lack of desirable incentives, and lack of time to enter student data. Some people also expressed philosophical concerns about incentivizing student behavior.

Year 3 of the *Infusionomics*TM program introduced *Skills for the 21st Century Marketplace*TM. There are a total of 24 skills, six of which are considered optional (see Table 6 in *Year 3 Implementation Data*). Teachers who taught these skills said they worked well in a complementary fashion with the *Keystone Economic Principles*TM. Some schools had existing skills frameworks and service learning programs that overlapped with the *Skills for the 21st Century Marketplace*TM and found they reinforced their programs. A staff member suggested that *Skills for the 21st Century Marketplace* be incorporated from the beginning of the program, giving students additional time to develop them. However, other teachers did not introduce the skills during Year 3, and some described them as “overwhelming.”

The *Infusionomics*TM program also includes entrepreneurship and development of school or classroom businesses in Year 3. A few schools had pre-existing student businesses at the school or classroom level and maintained these. Only one additional school took steps in Year 3 to implement Entrenuity, an on-line partner program that supports entrepreneurship and development of student businesses. Schools that did not pursue Entrenuity cited lack of knowledge about Entrenuity, insufficient staff time for undertaking another project, and competing demands related to student achievement, school accreditation, or other commitments. Some reported philosophical objections to developing for-profit activities within the school program.

In Year 3, many schools reported that the annual special project was limited to specific classes or groups of students. As a result, the projects tended to be smaller in scope and therefore more manageable. In some cases, teachers filled the special project requirement by integrating *Infusionomics*TM principles or activities into an existing student activity, such as an annual fundraiser. These teachers said the *Infusionomics*TM overlay increased engagement and increased the learning potential of the project. Speaking of a special project built on an existing fundraiser, one said, “They [students] loved it... We had them do the math, and they had a goal... They knew exactly how much they were going to need to pay back the loan [supporting the activity]. They would ask every day if we made a profit.” In addition to paying back the loan, these students were excited about the profit because they “wanted to give part of the money away.”

The *Infusionomics*TM program is based on a whole-school model that is infused into the school culture academically and philosophically. Consequently, full implementation requires staff collaboration. One teacher said, “We are sharing a lot and letting each other know what we changed in a lesson, what worked, and what didn’t.” Another said, “Collaboration is essential for those that do not have training.” Some staffs distributed and shared their work. A teacher described this saying, “We divided up the lessons for the end of the year... Do what we do best, and then divide it up.” Staffs that grew their collaboration across the three years of the project said that it supported implementation of *Infusionomics*TM and also benefited the school by increasing staff cohesion and enhancing communication. In schools where collaboration was minimal, staff members attributed this to grade level or content area compartmentalization or to a lack of common planning time.

The importance of the lead teacher for effective implementation became increasingly clear over the three years of the program. In addition to managing program logistics and data, the lead teacher supported staff members by co-teaching and by providing materials, guidance around integrated instruction, and expectations for the program. When there was turnover in the leadership position or when lead teachers lost time for working on the program, implementation was disrupted. A principal who assumed the duties of the lead teacher commented, “It’s more work than I thought.” Another administrator said, “You need to make sure you have a lead teacher. The hardest part is if your lead teacher changes every year. Then you lose something.”

School staff members were aware of the program-level improvements made by project leaders and said they made implementation easier. These improvements included program changes and new tools. The shift from nine Keystone Economic PrinciplesTM to quarterly themes in Year 2 was particularly significant. Teachers found it easier to work with the themes and to infuse them into their curricula. One said, “For the first couple of years, I went in order, one [principle] per month. This year, I used all the principles whenever they fit, and that went well.” Ultimately, the improvements helped teachers with practical issues pertaining to implementation and deepened their understanding of the philosophy and pedagogy of the program. Many staffs still reported struggling to implement and integrate the different program components over time because of the learning curve associated with each component. Some anticipated their most effective implementation would occur in Year 4, when there are no new components.

Year 3 Implementation Data

During Year 3, program personnel asked school staff members to submit data reflecting implementation of *Infusionomics*TM on a quarterly basis. At the time of this report, one school had not submitted 3rd quarter data and two had not submitted 4th quarter data. In some schools, the number of teachers submitting data varied across quarters. For example, at one school 14 teachers submitted implementation data for the 1st quarter but only 2 submitted data for the 3rd quarter. Across schools, the numbers of teachers submitting data for the four quarters were 32 (1st quarter), 31 (2nd quarter), 17 (3rd quarter), and 22 (4th quarter). Because of missing data, the results can be interpreted as trends but are not necessarily conclusive.

Table 3 summarizes Year 3 implementation data for *Infusionomics*TM Themes and Keystone Economic PrinciplesTM across quarters. These data show a general progression through the four themes over the course of the year. They also show different degrees of emphasis on the nine principles. Table 4 shows the frequency of integrated lessons per quarter and the preparation and instructional time for the *Infusionomics*TM lessons. Table 5 shows a comparison between the numbers of lessons teachers generated on their own or used from the provided curriculum. The number of teacher respondents for each quarter is included in tables reflecting implementation data to aids in interpreting the summary data in those tables.

Table 3.

Year 3 Implementation Data – InfusionomicsTM Themes and Keystone Economic Principles

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
<i>InfusionomicsTM Themes for the Quarter</i>				
Choices	22	6	2	1
Costs	13	14	4	1
Resources	6	12	12	2
Incentives	0	4	3	17
<i>Keystone Economic PrinciplesTM Integrated during the Quarter</i>				
Keystone Economic Principle 1	25	6	2	5
Keystone Economic Principle 2	15	7	3	2
Keystone Economic Principle 3	21	4	4	6
Keystone Economic Principle 4	4	4	9	4
Keystone Economic Principle 5	2	3	5	15
Keystone Economic Principle 6	2	7	6	4
Keystone Economic Principle 7	1	12	4	1
Keystone Economic Principle 8	4	4	9	6
Keystone Economic Principle 9	1	3	0	6

Table 4.

Year 3 Implementation Data – Infusionomics™ Lessons

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
Typical frequency of integration				
0-1 time	2	3	2	4
2-3 times	15	13	9	6
4-5 times	5	8	3	9
6 + times	11	5	6	3
Typical instructional time				
0-15 minutes	0	1	0	1
15-30 minutes	9	8	8	7
30-45 minutes	9	12	2	3
45-60 minutes	4	2	4	4
60+ minutes	11	6	6	7
Typical preparation time				
0-15 minutes	3	4	4	3
15-30 minutes	9	6	3	6
30-45 minutes	11	13	8	7
45-60 minutes	5	5	4	5
60+ minutes	5	1	1	1

Table 5.

Year 3 Implementation Data – Source of Infusionomics™ Lessons

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
Number of self-created lessons				
0	6	5	4	4
1	11	8	7	7
2	5	8	2	3
3	5	3	4	5
4	6	4	3	2
Number of provided lessons				
0	16	15	8	9
1	8	7	6	8
2	3	1	4	0
3	3	0	1	2
4	2	4	0	2

Program personnel asked school staffs to submit monthly data reflecting incorporation of the *Skills for the 21st Century Marketplace™* during Year 3. Table 6 lists the specific skills and shows the

frequency with which they were integrated into regular curricula. The data shows variation among the skills that were integrated, as well as variation across quarters. Table 7 shows the frequency with which *Skills for the 21st Century Marketplace*TM, in the aggregate, were integrated across quarters, as well as the preparation and instructional time for the skills lessons. Table 8 shows a comparison between the numbers of skills lessons teachers generated on their own or used from the provided curriculum.

Table 6.
***Year 3 Implementation Data – Integration of Skills for the 21st Century Marketplace*TM**

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
<i>Skills for the 21st Century Marketplace</i>TM integrated into curriculum				
Personal Management	10	3	4	8
Professional Development - Career Planning	2	1	4	6
Ethics	10	5	3	6
Integrity	6	2	6	7
Responsibility and Accountability	8	3	6	9
Critical Thinking	7	8	7	8
Contextual Learning	3	5	3	6
Leadership Development	1	2	1	5
Global Awareness	3	5	4	5
Professional Development - Job Seeking	1	1	5	2
Creativity and Innovation	2	2	7	8
Digital Skills	0	0	1	2
Communication Skills	4	4	7	7
Communication and Interpersonal Skills	3	1	9	6
Motivation and Personal Traits	4	4	5	6
Business Concepts	0	3	2	4
Entrepreneurial Process	0	3	3	0
Marketing	0	1	3	2
<i>Optional Skills for the 21st Century Marketplace</i>TM				
Strategic Planning	1	0	1	3
Financial Management	1	2	2	6
Operations	0	1	0	1
Information Management	0	0	0	1
Human Resources	1	1	0	1
Risk Management	0	1	2	2

Table 7.

Year 3 Implementation Data – Skills for the 21st Century Marketplace

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
Typical frequency of integration				
0-1 time	4	5	1	1
2-3 times	10	4	4	6
4-5 times	2	6	1	6
6 + times	2	0	6	2
Typical instructional time				
0-15 minutes	3	3	0	0
15-30 minutes	5	4	3	5
30-45 minutes	5	5	2	3
45-60 minutes	3	3	2	2
60+ minutes	2	0	5	5
Typical preparation time				
0-15 minutes	5	5	4	6
15-30 minutes	6	4	3	3
30-45 minutes	4	3	2	3
45-60 minutes	2	2	2	2
60+ minutes	1	1	1	1

Table 8.

Year 3 Implementation Data – Source of Skills for the 21st Century Marketplace Lessons

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
Number of self-created lessons				
0	7	3	1	4
1	4	4	4	3
2	3	4	3	3
3	2	2	1	2
4	2	1	3	3
Number of provided lessons				
0	9	10	9	8
1	4	2	1	3
2	3	0	0	2
3	0	0	1	1
4	0	1	0	0

Program leaders also asked school staff members to rate their own mastery for integrating *Infusionomics*TM concepts and *Skills for the 21st Century Marketplace*TM each quarter. These data are

presented in Table 9. Unfortunately, a number of 4th quarter respondents did not provide data for this question. However, the data shows the majority of teachers providing self-reports rated their level of mastery at or above the mid-range.

Table 9.
Year 3 Implementation Data – Teacher Self-Report of Mastery

Quarter	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
Number of teacher respondents	32	31	17	22
Level of mastery integrating concepts and skills				
0 - really struggled	0	0	0	0
1	1	3	2	2
2	10	10	2	2
3	8	9	7	4
4 - no problem	13	7	6	4

As in previous years, some staffs reported that the program and its philosophy had permeated school culture. One person offered, “It’s a theme of the school. Choices and consequences are talked about all the time.” Another staff member said, “The culture has been greatly impacted, and it is primarily through the economic literacy lessons and knowing the principles.” Students made similar comments such as, “It’s part of the school.” Where implementation is strongest, staff members spoke of the important benefits of *Infusionomics*TM for the particular populations they serve, saying it encourages responsibility, opens students’ eyes to new possibilities for the future such as college, helps them understand the consequences of their behaviors, and provides examples of fiscal responsibility often missing from their environments. One teacher said, “They learn they have control of their anger, themselves, and the choices they make. The ultimate decision you make is all yours and you own that and the consequences that follow. That gives our kids more power than they have ever had before.”

Program Impact

To understand the impact of *Infusionomics*TM, it is important to consider student knowledge and behavior, teacher development, and the relationship between implementation and outcomes.

Evaluation Question 2: To what extent does student economic knowledge change over time?

This evaluation tracked changes in student economic understanding over time through qualitative data obtained from teacher and student report and through students’ self-perceptions. In Year 2 and in Year 3, teachers reported that many returning students retained the basic concepts from previous years. One staff member commented, “I think it would probably be the best year of student comprehension and use of terminology.” In Years 2 and 3, they saw students grow through participation in the token economies which provided real-life examples of economic concepts and principles they were learning in the classroom, such as choices, costs, resources, incentives, scarcity, needs and wants, saving, budgets, goals, and priorities. During the Year 3 focus groups, a number of students spoke knowledgeably about economic concepts, particularly opportunity costs,


scarcity, debit, credit, interest, and profit. An administrator noted, “The integration of the Keystone Economic Principles™ provides a common vocabulary for students and staff to use.”

Staff members and students also reported growth in students’ understanding of concepts and practices related to business and personal finance and in *Skills for the 21st Century Marketplace*™. A teacher said, “There is improvement in business planning. They are understanding terms, learning how to do presentations, greet people, how to begin and end an interview.” Through the special projects and the school businesses, students had opportunities to practice these skills and ideas. Students talked knowledgeably and with pride about their roles in special projects and in the businesses. They discussed how they kept track of their business, how much profit they made, and how this affected loans they had obtained to support the business. A teacher commented, “When it is time to do the business, they know exactly how to do things.” According to one teacher, a few students independently extended their learning by researching and buying some stocks.

School staffs are looking for additional ways to increase student understanding. One administrator suggested, “At the beginning of the year, do fast reviews of the concepts, just like you do with other subjects, maybe two a week for the first four weeks, a 15-minute lesson to remind the kids. They can get the big picture in the beginning of the year.” A lead teacher commented, “If we could get to the point where all of the teachers decide that we need to do this the right way and get a consistent solid staff, I think we would see a huge growth in these economic principles in these kids.” Teachers believe the content knowledge and the hands-on learning through *Infusionomics*™ raised students’ confidence, and this has generalized to other academic areas. One noted, however, “It has moved kids onto a higher level of thinking, but I can’t tell you yet if it has increased academic excellence.”

In the majority of student focus groups conducted throughout this three-year evaluation, students identified and used basic concepts from the *Infusionomics*™ program and the Financial Literacy lessons. Their understanding of the concepts and the purpose of the program appeared stronger in Years 2 and 3 than in Year 1. Students liked the Financial Literacy lessons, and older students were aware of their practical relevance. Students said they began to pay more attention to the financial decisions made by family and friends. Some of the learning students shared during the years of this evaluation included:

- “You have to think about what you buy because there are consequences.”
- “There are costs for what you do with your time.”
- “You have to think about the future more.”
- “If you buy things you want all the time, you can’t but the things you need.”
- “You have to have social skills. You need to talk respectfully to your customers.”
- “If you save, you get more.”
- “What people buy affects the people around them.”
- “It’s your choice to not do work or to work.”
- “I’ve learned how to save more. It [student economy] shows us how much money we have and how to use our options.”
- “You never really looked at how much money you spend, but if you look at it over a couple weeks, it’s not pocket change anymore. It changed the way I view things.”



Evaluation Question 3: To what extent do student perceptions of economic attitudes and behaviors change over time?

School personnel used the *Infusionomics*TM concepts as a framework for discipline and for building students' decision-making skills. Both teachers and administrators increasingly used the language of *Infusionomics*TM when dealing with behavior issues: choices, consequences, wants, and needs. They encouraged students to consider their choices and the short- and long-term consequences of their decisions. Having common language enabled teachers and students to discuss behavior in the moment. A teacher observed, "It helps to have that conversation with them rather than always reprimanding their behaviors." Teachers and administrators believe that students were slower to react in anger and showed higher levels of trust. They believe this is due, in part, to a greater sense of their own control and power. Many aspects of the program focus on students taking ownership of their own behavior, which contributes to these changes. Further, staff members believe the program encourages "peer to peer influence," meaning that students hold each other accountable. One teacher commented, "I trust them more and their ability to make better choices."

The token economies provided simple but critical learning opportunities for students and encouraged higher levels of responsibility. For example, in schools where students were required to purchase their own supplies and materials, they were better at keeping track of their supplies.

Several teachers observed that once students had access to resources, whether real currency through a business or virtual school currency through the token economy, they often chose to do things for other people. Students purchased goods or services for family and friends through the token economy, and some classes used business profits to support people in need in the local community or abroad. One student said, "For our business, we thought of something we want to give to other people."

Students said there were changes in their economic attitudes and personal financial choices. In particular, they talked about the importance of saving and the consequences of not managing money. One student said, "It makes me a lot more aware of what to spend money on...spending on what is needed first." Another said, "I started to save money. I learned that there's stuff I need more than what I want. If you spend it on stuff you want and then you need something, you won't have it." Students said they are now more likely to ask questions before making a purchase to ensure that are making a wise choice. They also are more careful about comparing prices and checking their change.

Overall, students like the *Infusionomics*TM program because "there are more opportunities for choices and accomplishments." Older students believed it has prepared them for the future in terms of their financial knowledge and in their ability to understand their choices and the forces that operate on them. Staff members also valued the program, saying it has influenced a variety of student behaviors, including decision-making, planning, and financial activities. They believe it increased students' ownership of their behaviors, perceptions of efficacy, and long-term plans. Reflecting on the effects of the program on students' behavior and economic attitudes, an administrator said, "The program seems to have a gradual impact. It provides students a sense of

responsibility... It also provides them with resources to manage so they realize that they are not poor and they have power and freedom.” Another person commented, “It helps them describe their lives...the way they relate and think about God, whether they make it at school, how they relate to their bosses.”

Year 3 Student Questionnaire Data

Over the three-year evaluation period, program leaders in collaboration with The BERC Group developed student questionnaires to assess the impact of *Infusionomics*TM on students. Initially, there were elementary and secondary questionnaires consisting of two separate sections assessing content knowledge and attitudes. These questionnaires underwent a number of revisions based on item analyses, factor analyses, and practical feedback from school staffs. By Year 3, the vetted items were consolidated into one questionnaire for elementary students and one for secondary students. While it was initially hoped the questionnaires would provide outcomes data across the grant period, the main goal was to develop an instrument that would be part of the program package for future dissemination. The final elementary and secondary questionnaires consisted of 35 and 33 items, respectively. On these questionnaires, students use a 5-point Likert scale (0 to 4) to respond to items reflecting economic understanding and attitude. Higher scores show greater understanding of and alignment with economic principles regarding choices, costs, resources, and incentives. The questionnaires are intended to obtain baseline data in fall (“pre”) and outcomes data in the spring (“post”).

During Year 3, there were problems with administration of the questionnaires and with data collection. One school did not complete the questionnaires, and some secondary grades used the wrong version. Further, less than half the students completed both the pre questionnaire and the post questionnaires, minimizing the number of cases that can be used to document change from pre to post. In addition, these students are not evenly distributed across schools. Thus, the results of the Year 3 student questionnaires cannot be considered representative of program impact and must be interpreted with caution. Because of sequential revisions during the three-year development, these questionnaires did not track student outcomes over the course of the grant.

Three elementary programs (Brinkley Heights, Harambee Christian, Lighthouse Academy) and three secondary programs (Brinkley Heights, Lighthouse Academy, Omaha Street School) completed the final version of the questionnaire. In addition, students in three secondary programs (Brinkley Heights, Cornerstone Academy, Forest Park Street School) completed a previous 58-item version of the questionnaire. This version is sufficiently different from the one currently in use that the data cannot be aggregated across versions. Table 9 presents descriptive statistics for the Year 3 student questionnaire results. As noted above, it is difficult to draw conclusions regarding Year 3 outcomes from questionnaire data because of problems with the data collection process.

Table 10.

Year 3 Student Questionnaire Descriptive Statistics

	Number of students	Mean Score (scale 0-4)	Standard Deviation
Elementary			
Pre questionnaire (fall)	77	2.489	0.564
Post questionnaire (spring)	52	2.522	0.543
Pre/post difference	44	0.065	0.489
Secondary			
Pre questionnaire (fall)	88	2.452	0.729
Post questionnaire (spring)	37	2.782	0.537
Pre/post difference	9	-0.091	0.608
Secondary (previous version)			
Pre questionnaire (fall)	96	2.775	0.499
Post questionnaire (spring)	68	2.796	0.529
Pre/post difference	48	0.022	0.467

Evaluation Question 4: To what degree can changes be attributed to the professional development provided in each school?

Program leaders provided professional development and technical assistance throughout the project period, adjusting their strategies as the program evolved and as the needs of schools became evident. To maximize program effectiveness while under development, they provided both common project-wide professional development activities as well as differentiated support for individual schools. Early in the implementation period, some staff members from each school attended *Infusionomics*TM trainings, which were described as “inspiring,” “very helpful,” and “invaluable.” These trainings were discontinued because of funding limitations, and schools with higher levels of staff turnover were at a disadvantage when trained staff members left. To fill the resultant knowledge gaps, program leaders provided on-site training as needed. A few schools regularly held inservice trainings or collaborative meetings focused on *Infusionomics*TM, which participating teachers described as essential for implementation.

Program leaders encouraged collaboration across schools through conferences and an online forum. According to school staff members, collaboration at conferences was extremely beneficial, and they were unhappy to lose these opportunities when conferences were eliminated. During Year 2, program leaders introduced an online forum, designed for teachers to share lessons, ideas, and resources. Some people accessed the online forums, but most did not, citing lack of access to technology, challenges in navigating the program, and lack of time as factors. Those most engaged in the forums said there were not enough people involved to make it worthwhile. However, some teachers made useful connections. One said for example, “I had an ongoing chat online about token economy.”

Program personnel also provided other resources for teacher development. Schools had access to training materials, including videos, the *Infusionomics*TM website, and tools for structuring and aligning lessons with the KEPs and with the basic principles of learning. Project leaders also developed an implementation rubric for teachers to use in self-evaluation. While few staff members used the *Infusionomics*TM training videos in Year 1, more people watched them during Year 2. New teachers found them useful for developing their knowledge base, and returning teachers sought to use them to reinforce their understanding of the concepts. Teachers found the concept-matching grid useful for planning and sharing lessons. There were online courses to support implementation and token economies. One teacher commented at the end of Year 3, “I started the online class, and that has been really helpful” Another said, “The online resources really helped since I didn’t have any training. That was a huge resource. I go to that website all the time.”

Evaluation Question 5: To what extent is implementation correlated with teacher and student outcomes?

As noted in the Year 2 report, qualitative data must be used to determine the extent to which implementation is correlated with teacher and student outcomes. Statistical correlations require common instruments for measuring implementation and outcomes across schools. As outcomes are operationalized and measures further developed, they can be used to study the relationship between implementation and outcomes from a statistical standpoint.

The current evaluation and those that preceded it demonstrated that implementation of *Infusionomics*TM varied across schools and within schools during the three-year implementation period. There are two levels of implementation under consideration: integration of the economic content into other subject areas and integration of the program and conceptual model at the school level. Qualitative data suggests that stronger integration at both the classroom and school levels was associated with stronger teacher and student outcomes. Staffs that sought additional instructional support and made time for collaboration tended to show more confidence in their understanding of the economics concepts and in teaching them. Similarly, students and teachers of schools with effective implementation of other program components, such as the token economy or school business, tended to report greater impact on school culture and on student attitudes and behavior. These schools often entered the *Infusionomics*TM program with a stronger foundation or similar program elements in place. Some schools appear to plateau after Year 2, however. Contributing factors included staff turnover, lead teacher turnover, shifts in school funding, competing demands on staff time (e.g. concurrent accreditation processes), and personal tragedies. Given the small size of most of these schools, relatively small disruptions can have a significant impact on school functioning. Across all three years, the extent to which students could articulate the basic economic concepts and identify examples of these concepts in their lives corresponded to the level of conceptual and practical integration in the classroom and across the school.



Contextual Factors

Evaluation Question 6: What contextual factors influence implementation and impact?

School-level contextual factors influenced implementation and outcomes during each year of the grant and were discussed in the previous reports. The following contextual factors are particularly salient and may be useful in determining school readiness for adoption and for trouble-shooting implementation.

School leadership commitment and staff buy-in. Like other programs designed for school-wide adoption, *Infusionomics*TM is most effective when school leadership is committed to the program, when teacher leadership is available, and when the staff buys into the program. A program leader observed, “The executive director and their passion for economic literacy have a big impact.” A designated lead teacher with the time and capacity for the leadership duties is essential. Further, staff buy-in to the philosophical tenets of the program increased their commitment and provided a foundation for understanding program goals. In addition, strong school leadership and teacher buy-in help guide staffs as they prioritize and distribute their time and resources among competing demands.

Staff philosophy regarding generational poverty. Program leaders and some school staff members believe an understanding of the mechanisms of generational poverty is essential for program implementation and effectiveness. This became evident particularly in conversations about whether students should use their earnings in the student economies for school supplies, uniforms, and field trips. Some staff members believe students with few resources benefit from direct generosity, such as openly giving them the supplies and clothes they need. Others believe there is greater benefit in having students develop self-reliance and responsibility by earning and using their own resources. When philosophical differences existed within a staff, implementation was less consistent.

Pedagogical orientation and capacity of school staff. Teachers with deeper understanding of backward curriculum planning and the principles of authentic learning appeared to have a stronger grasp of the goals for integrating *Infusionomics*TM into another content area and more resources to make this happen. According to project leaders, “School focus on process or content can make a difference.” Interestingly, the expectations for infused and integrated instruction led some teachers to reconsider their approach to teaching, in general, and some schools acquired additional pedagogical training as a result.

Student, teacher, and administrator turnover. For schools with higher levels of student turnover, it was difficult to cultivate a conceptual foundation for students or to engage students in hands-on activities, such as the special projects or a student business, in meaningful ways. Teachers were not able to count on students having prior exposure to the concepts. Schools with high levels of teacher turnover encountered a loss of knowledge and expertise as trained teachers left. This was particularly problematic when lead teachers left. Loss of administrators during the three-year phase-in period also disrupted implementation.

Existing school curricula and programs. Where existing content curricula were weak or unclear, it was difficult for teachers to integrate *Infusionomics*TM into their ongoing instruction. Some teachers were also concerned about displacing their content area curricula, particularly in those schools following

the local public school curricula or offering standardized assessments. In schools with multiple educational programs or tracks, implementation typically was often inconsistent across the school. School programs with pre-existing value or behavior systems similar to *Infusionomics*TM, such as Love & Logic or Habits of Mind, generally found the programs to be complementary with *Infusionomics*TM.

Resources and connections with the external community. Schools received support from a variety of sources, and some of these directly influenced implementation of *Infusionomics*TM. At one school, a staff member from a local bank brought a financial literacy program to the school that dovetailed with *Infusionomics*TM. Some schools have strong ties to the local business community, with business owners investing in the school, making donations for the student economy, and providing practical and financial support for student and school entrepreneurship. These community members also help establish connections with other business owners and increase visibility of the school, which can lead to additional practical and financial support.

Lessons Learned and Sustainability


Evaluation Question 7: What are the lessons learned?

During the three-year evaluation period, seven schools implemented *Infusionomics*TM. Program development continued throughout this period, as project leaders monitored implementation, made program adjustments, and developed tools. Several salient lessons emerged, and they will be important considerations as the program moves forward.

Philosophical commitment to a need for economic and financial literacy is essential. School staffs members must believe in the importance of economic and financial literacy for their students, in order for the program to succeed. This philosophical commitment can stem from any of a number of values, such as concern regarding students' futures, social justice, or stewardship. Regardless of the impetus, the commitment is an essential part of the program's foundation in any school. Further, it is essential that the staff understands the fundamental principle of the program: they are not just teaching economic concepts, but also helping students develop an "economic way of thinking" that affects attitudes and behavior.

Schools differ in capacity and readiness for implementation. Variables affecting implementation include committed leadership, stability of staff, existing curricula and instructional frameworks, commitment to collaboration, and access to community partnerships. Schools may need to cultivate these areas before or during adoption of the program. Competing demands and requirements need to be taken into account when evaluating a school's capacity and readiness for implementation.

Teachers must understand their content area and the *Infusionomics*TM concepts. Teachers need to understand the basic economic concepts in order to feel comfortable presenting them and to effectively integrate them into their content area. Teachers often saw this as a two-stage process. This was evident in the comment, "We need to do the [*Infusionomics*TM] lessons one year and integration the next." The stand-alone Financial Literacy lessons may provide an effective starting



point for teachers with little economic background. In addition, teachers must have mastery of their own content area to find connections between *Infusionomics*TM and their curriculum.

School-wide implementation provides common language and focus. With school-wide adoption, staff and students develop a shared language, common expectations for behavior, and a focus on students' personal responsibility. These commonalities contribute to cohesion in the school. While students benefit from integrated instruction in individual classrooms, the larger and deeper effects on behavior, attitude, and understanding occur when the principles and concepts are embedded in the school culture.

Adequate technology must be available. Several aspects of this program rely on student and teacher access to computers and a computer network. This is particularly true for the token economies, but is also true for maintaining staff development.

***Schools need support to effectively adopt, implement, and sustain Infusionomics*TM.** This includes support materials, different types of learning opportunities for teachers, and ongoing professional development in the concepts, instruction, and collaboration as needed. Support can occur through program staff, the administrator, the lead teacher, or community partners. Sustainability planning should occur simultaneous to implementation, as it will guide the implementation process.

Implementation is enhanced by a combination of “non-negotiables” and flexibility. School-wide adoption is most effective when the “non-negotiables” – those components essential to program fidelity – are clearly identified and when there are opportunities for teachers to tailor the program to their own approaches. These distinctions can and should occur at the program level and at the school level early during adoption.

***Infusionomics*TM can be helpful in development efforts and in building partnerships.** *Infusionomics*TM provides multiple opportunities for business and community partners to become involved in the education of youth in their community. The program also signals investment on the part of the staff. This can be leveraged to build partnerships and garner support, particularly from organizations or partners with similar goals and values. For example, a school participating in this project obtained substantial financial support from a corporate community partner interested in supporting financial literacy.

Evaluation Question 8: To what extent are the changes sustainable?

In evaluating any initiative, it is important to consider the degree to which the program and practices are sustainable. During the course of this project, staff members commonly cited several issues that will likely impact sustainability. School-level factors included the amount of staff turnover, availability of training to ensure teacher preparedness, availability of technical support, and availability of teacher collaboration and planning time. Strong administrative and teacher leadership also promote sustainability. In schools where implementation is highly dependent on an individual or a few staff members, staff turnover will threaten the program. Ensuring new staff members receive appropriate training or mentoring in *Infusionomics*TM will minimize the impact of staff turnover.

All administrators said they would continue the Keystone Economic Principle™ integration and the financial literacy lessons after the grant period. Ongoing integration of economic concepts with other content areas will be influenced by the school's instructional framework, particularly the extent to which it is focused on the student-centered principles of learning. The quarterly curriculum model and designation of some KEPs as complementary increased the flexibility of the curriculum and integration, and teachers said they are more likely to use the curriculum because of this flexibility.

In schools where implementation was more advanced, staff members began to appreciate the ways in which the program components worked together. They also understood how the components were more sustainable when synthesized. One staff member reflected on the program design saying, "The various aspects of the program are integrated exceptionally well. The student business funds and makes the school economy possible. It is a self-sustaining model." Administrators and program leaders also believe sustainability will be stronger if the program is embedded in the school culture. One staff member in a school said, "We would continue [the program] if you [program leaders] stop it. It's a core of what we are."

Some schools will continue to use *Economis*, while other staffs said they will continue with other student economy formats. School leaders note that student economies require personnel time for managing the system and resources for incentives, and these issues need to be addressed if the economies are maintained. Staffs that reported little benefit from the token economies or that found the program at odds with other therapeutic approaches in their school were uncertain if they would continue the student economy.

The availability of external support through volunteers, community partners, and affiliated churches will affect sustainability. Staff perceptions of their students and their need for *Infusionomics*™ will also determine whether the program is sustained.



SUMMARY

The StreetSchool Network in conjunction with the Powell Center and other partners adapted an economic literacy program to meet the needs of underserved urban students. Project personnel believed this *Infusionomics*TM program would benefit these students by enabling them to understand economic concepts that affect their lives and by increasing academic engagement and achievement. Over a three-year period, seven schools implemented the *Infusionomics*TM program, phasing in the various components over time. Project staff members collaborated with The BERC Group to design and conduct an evaluation to study implementation and outcomes of *Infusionomics*TM and to provide formative and summative feedback.

The evaluation considered program implementation at the school level, as well as impact on schools, teachers, and students. This evaluation report provides formative and summative feedback for Year 3 and more generally for the entire project period. During the three-year implementation period, project leaders attended to feedback from participants, formative evaluation results, and their own observations, addressing problems as they arose rather than waiting for the conclusion of the project period. Because of this, year-to-year comparisons are difficult to make and the program has not been fully evaluated in its final form, as of the end of Year 3.

Implementation of the *Infusionomics*TM program requires schools to sequentially phase in program components over a three-year period, infusing the program philosophy and activities into the school. The program components range from brief mini-lessons in the classroom to school-wide token economies and student businesses. All schools integrated the Keystone Economic PrinciplesTM into their curricula and taught the Financial Literacy lessons. The extent to which teachers integrated these lessons into their regular curricula varied, however, and many struggled with this aspect of the program. Over the course of the grant, each school implemented some form of a token economy, using *Economis* or another system. Schools with the most effective token economies had school-wide implementation, student involvement in management, and designated administrative time. In schools at the other end of the spectrum, token economies were used in some individual classrooms. Student businesses followed a similar pattern, ranging from school-wide implementation to partial involvement. Implementation of *Skills for the 21st Century Marketplace*TM varied across classrooms, and some teachers did not address them at all during this project. Each school had a unique pattern of successes and commitments in implementing the various program components. This suggests that the characteristics of a given school interacted significantly with the demands of and approach to implementation and with the array of program components.

To determine whether a program yields its targeted outcomes, it must be implemented with fidelity. The uneven implementation of *Infusionomics*TM during the evaluation period means the full impact of this program is still not fully known. However, there are clear indicators of positive effects at the school, teacher, and student levels. Where there was school-wide commitment to the philosophy of the program and to implementation of specific components, there was shared language and common expectations among staff and students. This had the effect of unifying the school and in some cases, *Infusionomics*TM became central to the school's identity. In these schools,

participation in *Infusionomics*TM had a positive impact on teacher practices. In order to meet *Infusionomics*TM program requirements, teachers found they needed to collaborate, review their curricula, and consider their approaches to instruction. Thus, program adoption encouraged teachers to engage in known best practices for educators. At these same schools, students used common language, developed a sense of efficacy and growth through active participation in the token economy or school business, and were able to articulate and provide examples of the primary *Infusionomics*TM from their lives. Together, these findings suggest that the *Infusionomics*TM program has promise for improving conditions and outcomes for schools, teachers, and students.

The evaluation also documented contextual factors, issues pertaining to sustainability, and a number of lessons learned through the implementation process. These considerations will be useful in continued program development and in preparing future schools for program adoption.

Finally, throughout the three-year implementation period, project staff engaged in ongoing program improvement. Their consistent and close scrutiny of the program's strengths and challenges at each stage enabled them to address concerns as they arose. Teachers and administrators appreciated the willingness of project staff to listen to their concerns and to respond to these challenges. By the end of Year 3, a number of program improvements were in place and project leaders had considerable knowledge of the factors influencing implementation and outcomes. This three-year implementation project resulted in program improvement and a deeper understanding of the factors that make it work.



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