CAPITALIZING ON MICROSOCIETY:

MAKING THE MOST OF WHOLE SCHOOL REFORM

YEAR TWO REPORT

Prepared for
MICROSOCIETY, INC.
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Report Focus

This report was prepared by Research for Action and Kutzik Associates and is an interim assessment of the impact of the *MicroSociety*® program in 18 schools across the country. (17 of these are Comprehensive School Reform Demonstration (CSRD) schools.) The report provides findings from the second year of research in a three year evaluation of how the *MicroSociety* program, as a whole school reform model, <u>is influencing curriculum and instruction and affecting student attitudes and learning</u>. The overall evaluation is addressing three broad research questions.[1] The questions for the three year study are:

1) What is the impact of the *MicroSociety* program on student achievement (standardized tests, promotion, and retention rates) and student engagement indicators such as attendance and disciplinary infractions?

2) What is the impact of the *MicroSociety* program on students' sense of empowerment and their attitudes toward school and its relevance to their futures?

3) Does participation in the *MicroSociety* program improve students' reading, writing, and math skills? If so, how? If not, why not?

This interim report discusses questions two and three only; question one will be an important part of the third year report.

Over the past thirty years, education researchers have consistently found that educational reform initiatives frequently fall short of their intended outcomes. They have also found that program planners and educators have a better chance of realizing their intentions and hopes when they take stock of their efforts and make mid-course corrections based on the evidence yielded from a critical assessment of what is happening and why. In this report we offer images of academically robust *MicroSociety* program ventures and agencies so that school staff can better see opportunity and possibility. We also identify factors that can strengthen or undermine implementation so that MICROSOCIETY, Inc. staff and school-based educators can work collaboratively to realize the greater potential of a *MicroSociety* program as a whole school reform strategy aimed at positively impacting student achievement.

Overview of Findings

Our research showed that the majority of students enjoyed participating in *MicroSociety* programs. They viewed their work in Micro as important both now and to their futures. In short, we found that participation in Micro improved many students' attitudes towards school. We found wide variation among ventures/agencies in terms of the opportunities they offered for students to develop reading, writing, and math skills. At the time of our school visits, most school staff did not incorporate Micro approaches and content into their classroom teaching.

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[1] For more detail on research methodology, see Appendix A: Methodology and Design.

Further, our research showed that there is wide variation of model fidelity among schools in the implementation of the *MicroSociety* program.[2] Schools fall along a broad continuum in terms of their capacity to recognize and seize upon the potential of the program model to catalyze changes in their educational programs that will motivate students and improve their achievement. In some schools, even at this relatively early stage of implementation, students exercise real power over what the *MicroSociety* program looks like and their own experiences and learning in *MicroSociety*. In these schools many students participate in the life of a complex miniature society; they work cooperatively in ventures and agencies that offer many opportunities to explore rich academic content and apply and practice reading, writing, and math skills. At the other end of the implementation continuum, there is less fidelity to the program model. School staffs have more narrowly installed the *MicroSociety* program as an economic system of rewards and sanctions. Adults often direct the life of the society; learning experiences are limited in their academic content; and expectations for what students can do are low.

The *MicroSociety*® Program's Theory of Change

The introduction of the *MicroSociety* program into a school is intended to effect shifts in both school culture and educational program. It is an ambitious reform model that uses the creation of a miniature society within a school to:

- Offer a context for students to apply academic skills and knowledge to real world tasks and problems and to develop new skills and knowledge in the process

- Fundamentally alter the power relationships between adults and students so that students take charge of their miniature society and in doing so also take charge of their learning.

As founder George Richmond (1973) writes, the *MicroSociety* program "rejects the kind of schooling that is an imposition from above and from outside, in favor of growing from within" (262). The *MicroSociety* program transforms the object of learning from the transfer of knowledge to the application of knowledge. Knowledge is gained in experiences that create an imperative to apply academic and social skills or to experience and then know something new. In sum, Micro facilitates experiential or applied learning, and does so based on the foundation that this endeavor, if it reflects "the fundamental contexts, structures, and forces of actual existence," can facilitate students "learn[ing] to shape themselves and the world in which they dwell" (Richmond 265).

To assess the impact of a complex reform such as the *MicroSociety* program on specific outcomes such as student attitudes and the development of their skills and knowledge in the areas of reading, writing, and mathematics, it is important to understand the program's theory of change, that is, its assumptions about how program activities will produce the desired effects. Although MSI does not have a written statement detailing its theory of change, our conversations with program developers, trainers, and other MSI staff, observations in schools, and review of program documents suggest pieces of the theory that relate specifically to research questions two and three. It's important to note that a program's theory of change is not static; it evolves over time as program planners incorporate new understandings of what makes the program successful into the

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[2] Some clarification: we will use the terms *MicroSociety*® program, miniature society, and Micro interchangeably; we will refer to the period of the day when students are actively engaged in Micro venture and agency activities as "Micro-time;" and we will call MicroSociety, Inc., "MSI."

program's design and as school staff and students adapt program elements to fit the particular circumstances of their schools. In fact, an important goal of ongoing program evaluation is to help planners and educators clarify a program's theory of change, to develop a shared language about program components and their intended effects, and to modify the theory of change where necessary.

The Theory of Change and Student Attitudes

MicroSociety program developers believe that the opportunity to create and run a miniature society appeals to students because it is relevant to their lives; that it has the potential to engage a broad range of students; and that students' engagement spills over into other aspects of school. Students who enjoy school will attend school regularly and thus be more likely to achieve well.

Additionally, *MicroSociety* program developers believe that having a job in a *MicroSociety* venture or agency gives students opportunities to try on new and meaningful roles, to learn about the culture of employment, to apply learning to authentic tasks, and to get a glimpse of what adulthood holds for them. The result will be students who see school as a place where they can learn how to become contributing adults and what it feels like to have a sense of pride in a job well done.

Further, as students participate in their society's government, they learn important lessons about the responsibilities of citizenship, leadership, power and influence. These lessons will result in students who are good school citizens, who behave appropriately in their classrooms, on the playground, at lunch, and who contribute to a positive school environment.

Finally, *MicroSociety* program developers believe that as students assume more responsibility and authority in their ventures and agencies and in the governance of their society, there is a shift in the power relationships between teachers and students. Students are in charge; they chart the direction of their society; they find solutions to complex, real-world problems. As teachers witness their students' resourcefulness and commitment, their expectations about what students know and what they can and will do changes accordingly. Teachers become more willing to take risks and to cede authority to students, not only in *MicroSociety* ventures, but in other aspects of school as well.

The Theory of Change and Students' Learning in Reading, Writing, and Mathematics

MicroSociety program developers believe that students learn by doing. The *MicroSociety* program is designed to facilitate experiential or applied learning. In their miniature societies, students apply their knowledge to promote the functioning of the society. Literacy and numeracy practices move from being abstract and purely classroom-based to being more contextualized and community-based. The dynamics of audience and transaction become central to school life. Students engage in transactions of goods and services using currency. Further, they engage in transactions of meaning --- producing written texts like products, advertisements, plays, and newspapers where the standard for quality comes in the texts' ability to communicate meaning and worth to other students.

From program documents and conversations with staff and from our observations in schools, Research for Action staff inferred that *MicroSociety* program developers believe that students will achieve greater fluency in reading, writing, and mathematics as they use their skills in the real-

world tasks of their ventures and agencies: making change, calculating their taxes, filling out job applications, writing and printing menus, etc. They will develop new skills in reading, writing, and mathematics as they work with new principles and concepts: designing and building a greenhouse, planning the purchases needed to open a restaurant, etc.

In addition, as teachers draw on students' experiences in the *MicroSociety* program and bring key concepts from the *MicroSociety* program into their classrooms, students will recognize connections between school-based learning and the knowledge that they are gaining in the *MicroSociety* program and that they need to achieve their real world goals.

The Theory of Change and the Evaluation

The work of the evaluation team in Year 2 focused on examining key components of the *MicroSociety* program's theory of change in action in school settings. We assumed that there would be differences between the espoused theory of action and the theory of action in actual practice. There are always differences between original intentions and plans and between plans and actions. But we also needed to understand how schools were adapting the model and the degree to which these adaptations were likely or unlikely to yield desired outcomes. Below we discuss our evaluation design and methods.

The Research Design and Research Methods

This three year evaluation study uses qualitative and quantitative methods to document and explain the impact of the *MicroSociety* program on students in 18 schools. More specifically the study is examining the impact of students' participation in the *MicroSociety* program on their sense of empowerment (e.g. locus of control), attitudes toward school (e.g. sense of responsibility for doing their best in school), and the extent of their involvement with reading, writing and math in the different ventures/agencies.

In the second year of the evaluation researchers paid particular attention to variations of the *MicroSociety* program implementation in a range of settings in order to understand program impact on student empowerment, student attitudes, the teaching of reading, writing, and mathematics and student learning in those areas. To do this Research for Action researchers visited eight *MicroSociety* schools during March, April, May, and June, 2001.

We chose schools that varied in size, in geographic region, in urban, suburban and rural settings, and in make-up of student populations. We examined varying approaches to implementation and varying degrees of model fidelity in terms of program impact on school culture, curriculum and instruction, and student attitudes and learning. We deliberately chose eight schools at varying stages of readiness for *MicroSociety* implementation according to MSI documents and school site coordinators. By design, the eight schools our research team visited fell along a broad continuum of implementation and model fidelity.

Researchers spent at least one day at each of the eight schools. In all but one of the schools researchers were able to observe *MicroSociety* time in action. In addition, researchers observed classrooms and selected ventures and agencies at work. We interviewed the principal,

MicroSociety school coordinator, teachers, and students. (See the attached Fieldwork Guide for what our field work schedule looked like and the specific questions that we asked in interviews).

When researchers returned from visits to schools, they wrote extensive field notes from their observations and interviews. Hundreds of pages of field notes were then coded by research question. Researchers also met to compare their analyses of ventures in terms of student responsibility and empowerment and literacy and numeracy. In this way, we were able to strengthen the reliability of our assessments.

It should be noted that the qualitative research was both exploratory and broad brush in its approach for two reasons. First, at this point in program development, MicroSociety Inc. has understandably not yet articulated tightly constructed hypotheses about how program components will effect specific outcomes. And so one task of the research was necessarily to identify potential causal links. Second, researchers needed to work within the parameters of the resources available to the evaluation, and the time we had to spend in schools was limited. Still and all, we learned a great deal about how school staffs are capitalizing on the potential of the *MicroSociety* program, about the challenges that staff members encounter as they pursue the ambitious agenda of program implementation, and about students' perceptions of the program and its impact on them. Please see Appendix A: Methodology and Design for a more complete description of research methods.

We rated each of the eight schools in terms of its fidelity to program implementation and then looked at the student survey results for each. In this way, we were able to get a preliminary and rough take on how model fidelity corresponded to desired student outcomes. As mentioned previously, it appears that the greater the fidelity to the model, the more likely students are to exhibit desired program outcomes as measured by the student survey. We will test this relationship more fully next year.

Implementation of a *MicroSociety* Program

Changing School Culture and Organization

Bringing the *MicroSociety* program into a school will change the school. The central focus of this report is an analysis of what that change looks like, why it looks they way it does, and perhaps most significantly, how that change might be more consistently capitalized on by adults and children in a school to better the lives and intellects of children. We have thus far briefly described some of the theoretical basis for the kind of whole school reform that *MicroSociety* program founders envision.[3] We now turn to an examination of what happens in a school that sets up a *MicroSociety* program. Through both a preliminary examination of a shift in school culture and organization and a brief analysis of why schools in this study chose the *MicroSociety* program as its whole school reform model, we set the stage for further analysis of how this program impacts the lives of school children.

Upon implementation of Micro, a school undergoes a fundamental shift in which:
- School becomes a context with the potential for powerful extended applied learning.
- Students take responsibility for themselves and become accountable to others in the community — by providing goods and services that are wanted and needed in an atmosphere of fairness, giving correct change, developing products their peers will purchase, writing increasingly sophisticated laws and enforcing them, creating clear and readable texts, or correctly calculating payroll, by taking on new responsibilities as learners and society members.
- As students assume greater responsibilities, stakeholders (e.g. teachers, parents/partners, principals) must relinquish control.

These structural changes create a strong connection between student engagement and attitudes and how, why, and what students learn and do in Micro. Indeed, part of *MicroSociety*'s ethos stems from the primacy and power of community — as Richmond (1973) describes — holding up a notion of an "extended family" that "serves…as the center of economic production, education, recreation, religion, care of the sick and aged, safety and defense" (265).

Seed, Brick, and Sand: Reform Readiness

The *MicroSociety* program looked very different from school to school. The whole school reform model asks teachers to transform their practice and their relationships with students, parents and community members. While all eight schools in our qualitative sample encountered challenges in program implementation at this juncture, we judged that program implementation at three of the eight schools was sufficiently weak to warrant concern.

The internal conditions of a school predict its readiness for change. Slavin (1995) identifies three categories of schools:

"Seed" schools have extraordinary capacity for adopting and adapting new ideas. "Brick" schools want to improve, but need direction, tools, and ongoing support. "Sand" schools are chaotic.

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[3] See The MicroSociety Program's Theory of Change, on pages 4-6 for further explanation.

They are characterized by incompetent leadership or a transition in leadership, limited resources, and poor relationships among staff. They lack the basic ingredients for positive change.

These three schools might be characterized as "sand schools" in Slavin's typology of reform "readiness."

It's important to describe briefly the challenges in these three "sand" schools so that MSI staff can work with school people to strengthen the program. Several problems were common across the three sites.

- There was significant unemployment and there was little in place to alleviate the high rate of joblessness. High rates of unemployment existed because teachers were assigning students to jobs rather than students applying for jobs of their choice and did not want to hire students whom they judged to be disruptive and/or undependable. Often students had little input into their job assignment.

- The Citizenship and Government strand was weak. Students neither wrote nor enforced laws governing the community.

- The *MicroSociety* program was highly teacher-directed with students holding little power or authority in shaping the direction of the society or individual ventures/agencies.

- Teachers were frequently unable to establish ventures/agencies that afforded students rich opportunities for learning. A significant number of ventures/agencies lacked academic content and offered few opportunities for students to develop their literacy and numeracy skills. (Researchers who visited the eight schools in our qualitative research sample rated each of the ventures/agencies they observed in terms of its attention to the development of students' skills in reading, writing, and mathematics and their conceptual understanding of subject matter. A total of forty ventures/agencies were observed. Ratings for ventures/agencies at each school appear in the TABLES below.)

- Basic supports for program implementation were not in place. Professional development was not sufficiently supported by the leadership. There was little planning time, and no full-time Coordinator. Micro was held one or two times per week or withheld at whim of principal.

TABLE I: Ventures/Agencies at Seed Schools

Seed Schools[4]	Number of ventures/agencies with rich opportunities for literacy and/or numeracy
School 1	4 out of 4 observed
School 2	4 out of 4 observed

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[4] The third "Seed" School is not included in this table due to the lack of opportunity to observe Micro-time

TABLE II: Ventures/Agencies at Brick Schools

Brick Schools	Number of ventures/agencies with rich opportunities for literacy and/or numeracy
School 3	3 out of 10 observed
School 4	2 out of 5 observed

TABLE III: Ventures/Agencies at Sand Schools

Sand Schools	Number of ventures/agencies with rich opportunities for literacy and/or numeracy
School 5	1 out of 10 observed
School 6	1 out of 5 observed
School 7	0 out of 2 observed

Our data suggest that the potential impact of the *MicroSociety* program will be significantly compromised if measures are not taken to strengthen implementation and increase model fidelity in the "sand" schools. Preliminary findings from the Spring, 2001 student survey suggest that positive impact is, in some cases, markedly lower in sand schools than in seed schools. As an example of this trend see TABLE IV below. It shows the overall percent of students responding "mostly true" to statements on the student survey, in one seed school as compared to one sand school.

TABLE IV: Students' perceptions of Micro's impacts

Items	Overall Percent Indicating Mostly True	Seed School Percent Indicating Mostly True	Sand School Percent Indicating Mostly True
I feel that what I learn in Micro will be useful to me when I'm an adult and have a job	87%	94%	81%
In Micro, I learn how to plan projects	55%	67%	44%
In Micro, I learn how to organize my time	67%	59%	57%
In Micro, I learn how to solve problems	64%	63%	56%
In Micro, I learn what I need in order to be a good citizen	79%	81%	66%
In Micro, I learn new ways of getting information I need	68%	68%	56%

Our researchers judged that poor implementation in these three sand schools may be reinforcing low expectations for some students. Students feel bad about themselves and alienated from school when they are unemployed for a long time. When there are not processes in place for students to receive feedback about their contributions to ventures and the quality of their products, they have no basis for ratcheting up standards for their work. In these situations, prompt and intensive intervention is necessary to help schools improve.

Why Micro?

In our visits to eight schools we asked principals, coordinators, teachers and students why their schools had selected the *MicroSociety* program from numerous whole school reform model options. What were school staffs' hopes and intentions when they adopted the *MicroSociety* program as a catalyst for whole school reform? What did they understand about the program and how did that understanding fit with their school's goals and mission and their assumptions about what students need to learn and the best ways for them to learn it. Given the focus of the evaluation on student

empowerment, student attitudes toward school and their futures, and student skill development in reading, writing, and math, we were particularly interested in whether these potential outcomes were important factors in their adoption of the program. Their responses were illuminating and, not surprisingly, foreshadowed what we would see in our observations of the *MicroSociety* program in action.

Micro Facilitates Learning in Relevant Ways

Some school leaders saw the *MicroSociety* program as reinforcing and enhancing their own theories about the kinds of learning experiences that benefit students. They were articulate in their explanations of the *MicroSociety* program's underlying principles and excited about making them come alive in their schools. The *MicroSociety* program is a good fit with these school leaders' theory of how learning takes place. These leaders said such things as:

- "I liked the idea and have a personal belief in making learning relevant and Micro is great vehicle to do that." — Principal
- "The benefit was, the way we were trying to maximize *MicroSociety* was to take what the children were learning in the classroom and applying it on a hands on basis." — Teacher
- "Some teachers heard about [*MicroSociety*] and went to Texas with the previous Principal to check it out. It offers hands-on, real-life practice that the kids can do, and it's for all skill and ability levels." — Principal
- "We saw as benefits the opportunity to have hands-on activities, to see lessons applied in real world activities, and to have students engaged in something fun and academic." — Micro Coordinator
- We wanted something different to expose the talents of the kids." — Micro Coordinator

Micro Addresses Students' Lack of Interest in School

Other school leaders saw the *MicroSociety* program as potentially having a positive impact on students whom they perceived to be alienated from school, uninterested in academics, and lacking the motivation to work hard. For these leaders, the *MicroSociety* program addressed deficits in students, their families, and/or community. The comments below reflect the benefits emphasized by these leaders.

- "I had three areas I wanted Micro to improve: attendance; FCAT scores; and discipline." — Principal
- "We felt our students being from the inner city, it would be something different so they could see how life could be with being entrepreneurs and owning their own business and not just have them stuck in one little rut, but to have them doing something to expand their horizon." — Micro Coordinator
- "The selling points [of *MicroSociety*] that it would increase attendance and test scores and parent participation. It is a great match to the school and the school's mission." — Principal
- "The selling points were that Micro gives kids the opportunity to be responsible for a business. It is a means of improving attendance, behavior, and test scores." — Micro Coordinator
- "We picked Micro because we had three goals: improve academics, improve attendance, and improve discipline." — Micro Coordinator

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Micro Mandated from Outside the School

Finally, in one or two cases, school leaders identified outside pressure as the deciding factor in their selection of the *MicroSociety* program. Comments by these leaders:

- "It came from our deputy superintendent." — Micro Coordinator
- "I think we started looking into it because of [a nearby *MicroSociety* School] a lot of the parents of 5th grade parents wanted their children to continue with Micro and since we are closest to [a nearby *MicroSociety* School] they looked at us." — Teacher

Summing Up

The first emphasis — making learning relevant, applying knowledge to authentic, real-world tasks, integrating fun with academics, and tapping the potential of all students — predicted well implemented *MicroSociety* programs that excited students and capitalized on this excitement towards meaningful social and academic improvement.

The last two emphases — addressing deficits and pressure from outside — we found, put schools further from providing students with rich academic content in Micro and offering them opportunities to assume leadership in the direction of ventures/agencies or the program more generally.

It is notable that academic achievement was infrequently mentioned in these schools as a reason for selecting the *MicroSociety* program. For the most part, school leaders did NOT describe *MicroSociety* as a robust intervention for enhancing skill development and conceptual understanding. As one principal explained,

- "It gets students here. Our attendance has increased. I am not sure if it's impacting reading, but it is getting students here. It has increased attendance; increased self-esteem and that will help kids get out of their current SES status. It's not the best program for reading. If I wanted to improve reading scores, Micro isn't the program I would have chosen."

Implementation of a *MicroSociety* Program: What Helps

Professional Development: Embracing Micro, Seeing Opportunities, and Seizing Opportunities

> Finding: Effective professional development for teachers around Micro focused on ways to capitalize on involvement in the school community and to promote applied learning. Professional development was most effective when it was continuous, uninterrupted and supported (attended) by the leadership. Other elements included:
>   - o   Extended workshops lead by MICROSOCIETY Certified Trainers, and attended by school administrators, and school coordinators
>   - o   Regular planning sessions with detailed agendas and expected outcomes
>   - o   Collaboration time with other teachers
>   - o   In-classroom supports including classroom coaching
>   - o   Access to and functional understanding of *MicroSociety* materials and handbooks

Workshops
School staff often commented that they needed additional support and training from administration and from Micro trainers. Staff highlighted the difficulty in working with trainers whose visits were infrequent. Staff felt that training was sometimes too general and did not provide solutions to the specific problems of their program implementation. When trainers maintained an ongoing dialogue with the site coordinator, or when a school staff member assisted in the training, teachers found the information more directly applicable and easy to use.

Planning
School staff needed concrete goals and strategies for incorporating academic skills into Micro ventures.

Classroom supports
School leaders who work with teachers in their classrooms to support their development in understanding the possibilities for *MicroSociety* have been very helpful in promoting academic content development in student ventures and agencies. At one school, we observed the site-coordinator coaching teachers in their classrooms and working with teachers to identify moments when students can be encouraged to make and deepen connections with academic content.

MicroSociety Materials
Many teachers did not seem to be familiar with *MicroSociety* materials. They did not have the time to study materials for answers to their daily concerns. If teachers were given an orientation to program materials and if quick tips or indexes could be provided, teachers might be more likely to use materials.

Site coordinators could create summary documents cross-referencing Micro materials and their school's Micro program and development plan.

"We Either Are or We Aren't a Micro School": Lessons from One Principal's Experiences

We found that principal leadership played a key role in the efficacy of *MicroSociety* programs. Schools with strong and supportive leaders were more likely to have developed Micro programs. As an example, we describe below the work of one principal who pressed for academic connections in her school's *MicroSociety* program.

> Finding: Not all school leaders pressed for academic connections in Micro ventures/agencies. Those who did, encouraged and made visible possibilities for student engagement in applied learning. In some cases, administrators required that teachers demonstrate the connection between Micro and classroom curriculum.

- "Last year was my first year at Rosa Parks Elementary School[5], so I had to understand Micro myself. I went to Detroit and visited a school that had been doing it for eight years and then I went to the conference. It's similar to the way I naturally teach. I always had a store and money."

As _____ began her tenure as principal at Rosa Parks Elementary School, Micro was already up and running. Charged with improving a school with below-state average student test scores and a staff with many new and inexperienced teachers, and to do so in a climate of high-stakes accountability from the state, Principal _____ had doubts about the potential for Micro to help achieve these ends. As she set about the task of charting the curricular and pedagogical course _____ School would take in her first year, she decided that to abandon Micro this early in it's implementation would be too much of a disruption. Further, students and teachers spoke with enthusiasm when telling her about Micro. If students liked the program so much and it was helping them get to school regularly, than it at least deserved another year. Besides, Micro looks a lot like, as Principal _____ says, the way she "naturally teach[es]."

After one year under her leadership, Rosa Parks Elementary School has seen dramatic improvements in tangible areas like attendance and test scores. They are recipients of the Governor's Award, $33,000, for exceeding SAT9 targeted scores growth and for achieving improved scores across all racial and ethnic groups. Does Micro contribute to these gains? Principal _____ says, "I attribute this growth to Micro. People ask us, 'Is that connected to Micro' (the gains), and since we have assessments built into Micro, I do think that makes us pay attention to all...areas." It has also seen improvements in less tangible ways: students like coming to school more; teachers are proud of their school's accomplishments (and flush with $500 dollars each of the school's Governor's Award); and students are beginning to see that they can and should have a significant say in what goes on at their school.

_____'s story provides a useful case study into the power of the *MicroSociety* program to be a truly effective and worthwhile whole school reform model. Through discussions with _____ and observations of her school's *MicroSociety* program, RFA researchers defined the following courses of action that lead to a school's robust and academically-rich *MicroSociety* program: (a) fully embracing and integrating Micro; (b) defining her school's short- and long-term goals around Micro; (c) leadership in linking Micro to classroom activities; and (d) connecting _____ school to

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[5] All school names have been changed to maintain anonymity.

the community at-large. In the following sections, we turn to _____'s own words in elaborating each of these themes.

Fully Embracing and Integrating Micro

- "I said when I came here that everyone is going to do Micro. We either are or we aren't a Micro school. We involve everybody at this site who is a teacher—the curriculum guide, the resource teacher, and everyone else who is on this campus is involved and knows Micro because we are a *MicroSociety* school—that's how we function."

- "Micro requires a common purpose so that forced the staff to come together to define a uniform focus for everything, not just Micro. Everything that comes through has to go to that focus: Learning to Read and Reading to Learn. Anything that comes through here that doesn't deal with that, we don't do it. So this automatically brought us to a higher level."

Micro's Ultimate Goal: Students Generating Learning

- "[What would indicate to me that Micro is a success at my school] is when students can generate their own learning, and they are starting to do this now. You can see this with ventures: when they started out, it was the teachers—the teachers' hobbies were turned into ventures. What's happening now is that students are coming up to us and asking to start their own ventures, and that's it right there: when students can start their own venture."

Linking Micro to the Teaching, the Classroom, and the Curriculum

- "I have to spend my time describing it to teachers and to help them link it to their grade-level standards. The program is basically a philosophy so it goes off of the creativity of the people that are doing it. That's why I say the success of the program is based on the people who are doing it, considering their ability and skill level."

- "Yes, it's a lot of work on my part, but it's also a fun way to teach the teachers how to teach. They learn how to make teaching fun and they're learning. I developed a tri-fold thing to show them how to do it—it's basically a prescription of how to do it. The teachers that are following that are learning how to teach."

- "Having to write things helps too; I asked the staff to write up a plan for their venture. To do this, they had to go back and read certain documents and then I'd go through the proposals and I'd ask, "Where's the reading? Do I see reading? Who's reading? Are the employees reading? Where's the math?" And I'm asking them that so that they know, "I have to do this; Kids need to do these things." So that common focus has helped us come together a great deal as a unit. It has actually bonded us and given people intervention strategies they might not have had."

- "This year we're (the Principal and Site Coordinator) doing a lot more classroom coaching to make sure that teachers reach and extend past what our expectations are. Things that

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were clear-cut in the beginning, sometimes people get overwhelmed and just choose the easiest thing—if they have a *little* link to Micro they think people don't notice, but we do. With one new teacher—new to the school—who runs the courts, the Site Coordinator had to go in and do classroom coaching during Micro time. [We go] into people's classrooms and say, "Okay, we're here to help you do this." We did get people to see things differently."

- "The example you saw today—she's a new teacher to this site and when she came and I told her about Micro and said, "We're not doing anything different. The same standards that you're teaching in language arts—those are the ones that should be coming out in Micro, just in the form of your business. If you can come up with a thematic area you can put your business to, that's even better." I asked teachers to think about the school—we sat and made lists—and we said, we are a school near the ocean, so let's tap into that. So her kids have been studying science from the beginning and they've been incorporating the reading and writing into that. She connected it to their fieldtrips. So now they're doing poems and working in areas we're weak in: she's bringing vocabulary into those poems. And they're following directions to make these things and that's something right there. The other teacher you saw, her class is doing research, tapping into different ethnic groups, bringing in the social science. Another venture is bringing in the technology piece. They're all doing the hands-on thing."

Linking Micro to the Community
- "We also make a lot of connections to people and workplaces in the community in order to make the real world and (Rosa Parks Elementary) more connected and more relevant to the kids. I go to school-to-career meetings where all the business leaders are there and I share what we're doing in Micro and they try to tap in. Anytime I'm someplace and see they're connected to Micro somehow, I ask them, "We're a Micro school, can we come visit here?" For example, with the bank, we connected to them through the Principal for a Day program. I told the bank manager who came that day that we needed passbooks for our bank and the next day we had 500 dropped off that the kids now use to keep track of their accounts. The bank manager then came to a market and was really impressed. After that a group of students went to the bank for a visit. All 33 of the students who went wrote thank-you letters to the bank and the bank manager posted them up in the bank. The kids told the bank manager they got ideas from their visit."

"I also make connections through the chamber of commerce—I get up and show videos. We've been on Channel 5 and on the district's cable channel. For the courts we swore in the Student Council members with a real judge who lead the kids through a swearing-in. One of the teachers used to live down the street from the Postmaster General, so she asked him to come and he did. He said, "If this was really a city, I'd have it broken down like this: this would be a street" and so on and the kids really got it. I tell the teachers that a lot of the connections come from me, but if you contact people, they'll come because of their connection to you. I've got a lot of connections through my church, through my hairdresser..."

Not only did school leaders choose the *MicroSociety* program for very different reasons—reasons which play-out in significant ways in the experience of students—but they brought *MicroSociety* into distinct school cultures. As *MicroSociety* programs are implemented in the schools, they began to reflect a lot about the school culture that already existed. In the next section we will look at the

ways in which Micro reflected this culture, and, ideally, began to reshape and reform problematic aspects of the culture. Regardless of how the program enters the school, even the most minimal implementation will begin to ask both adults and children in a school to reconceptualize their roles.

In examining the eight schools we visited, we first turn to the ways in which Micro impacted students — their self-conception, their attitudes towards school, and their views regarding their future.

Student Engagement: The *MicroSociety* program and Its Effects on Attitudes Towards School

In examining research question #2, "What is the impact of the *MicroSociety* program on students' sense of empowerment and their attitudes toward school and its relevance to their futures?" we looked at a variety of data: student survey responses, focus group interviews with students, interviews with school adults — teachers, principals and Micro Coordinators — and observations of them in the ventures and agencies, both at market and in the classroom. In this section and the next, we present data and findings that shed light on how the *MicroSociety* program is affecting the lives of students and school culture. We first turn to an examination of attitudes towards school, and then to its relevance to students' future. The following section, "Capitalizing on the *MicroSociety* program: Student Empowerment," presents findings on the crucial and complex issue of empowerment.

Students Report: "We Like MicroSociety"

Finding: Most students — across schools — reported that they looked forward to Micro time, they had fun, and most found their Micro job worthwhile and engaging.

Students reported a change in their attitudes towards school because of *MicroSociety*, describing the program as "fun" and the addition of a school-wide economy as "a big deal." Further, students reported liking school more because the *MicroSociety* program gave them an arena in which to become more responsible and gain the trust and respect of their teachers and fellow students. Where students were given more responsibility, they described enjoying school more because of increased autonomy and control over their school context:
- "Kids make more rules now and we give our opinion and talk about what we do. We follow rules better if we get to help make them."
- "Before my teacher didn't give me much responsibility but because of Micro my teacher gives me more. I learned a lot of things because of Micro."

Additionally, these increases in autonomy and control made students feel good about themselves:
- "I'm glad that I can work with people and I know what I'm doing and feel comfortable because I have experience doing it."
- "The kids next year will look up to us and I like that."

For some students, Micro made school better because of what they learn:
- "What I like about my job is…learning how to do things and learning all the stuff I didn't know at the beginning of the year."
- "We learn how to work together and to…not take over. I learn how to listen."

The data in TABLE V looks at two questions from the Spring 2001 Student Survey around the topic of student excitement about Micro. Overall, only a quarter — 25 percent — of students reported that they find their "Micro job boring"; 75 percent of students, then, do not find their job boring. Further, a similar percentage, 78 percent, feel that Micro is "one of the best things" about their school. TABLE V shows the overall average and range of responses to these questions:

TABLE V: Student Excitement about Micro

Items	Average Percent Indicating Mostly True	Range of Responses Across Case Study Schools	
		Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
I find my Micro job boring	25%	65%	12%*
Micro is one of the best things we do in this school	78%	89%	28%

*It is worth noting that, for this item, the lowest percent indicating mostly true constitutes the most favorable response.

Of note in TABLE V is the overwhelmingly positive attitude regarding Micro at one school—the lowest percentage true for the first question, the highest for the second.[6] These data support researchers' assessment of this school's Micro program, one that offered students employment in engaging and rich ventures and agencies; this confluence of data begins to draw a connection between the quality of ventures and students' experience in Micro and to help define what makes up a program that increases student enthusiasm about school.

Adults Report: The MicroSociety program is Making a Noticeable Difference

Finding: Adults—Teachers, Principals, and Coordinators—reported that the *MicroSociety* program improves students' attitudes towards school. They cited (a) improved attendance, (b) a decrease in disciplinary infractions, and (c) tangible displays of student enjoyment and engagement as evidence that the *MicroSociety* program is having a positive impact on students' attitudes toward school. Further, they credited the extrinsic rewards that were part of the *MicroSociety* program as responsible for improvement in student attitudes and behaviors.

When asked to describe the positive aspects of the *MicroSociety* program at their school, most school administrators and teachers noted first in their comments their school's improved attendance. Along with attendance statistics, they cited a reduction in discipline problems. Some attributed their increase in attendance to the students' desire to earn money. Others credited the empowering aspects of the Micro program. As one principal commented:

- "We have the highest average attendance (in the county), and I think that is a reflection of students wanting to be here in a positive environment...Our discipline is minimal, less than a tenth of what I had at my previous school. Giving students more responsibility, which is part of our mission statement, making kids more responsible for their own learning and own behavior."

Other adults reported gains made in attendance and/or behavior from pre-*MicroSociety* to the school's second year of the program:

- "We see improved attendance—we're now at the district average—and improved behavior—from 64 suspensions last year to 19 this year. Each month we have a large percentage of the students with perfect attendance and that's due to Micro and the [money] that they get. Kids want to come to school and they want to do Micro." —Principal
- "Attendance has gone up, discipline has gotten better." —Coordinator
- "Children who...have been behavior problems, through Micro, have attitude changes." — Principal

Finally, adults pointed to students enjoying school more, finding school more engaging because of Micro:

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[6]All school names have been changed to maintain anonymity.

- "Micro makes it possible for every child to fit somewhere. It allows every child's interest to be met." — Principal
- "It has given our students more confidence." — Principal
- "They feel like they have a lot of control over their destiny. They seem to be taking a lot of pride in what they do." — Principal
- "You can tell that students are totally motivated [by Micro]" — Teacher

Extrinsic and Intrinsic Rewards

One of the main reasons that adults gave for the improvement of school culture, i.e., an increase in attendance and student responsibility and a decrease in discipline problems, was the incorporation and subsequent significance of school currency and the increasing development and enforcement of rules by students:

- "I've seen them mature. A lot of them have really grown up because of their positions, wanting to get money. They want that money." — Teacher
- "Having our own currency at school is huge; it's a big motivator. And it's interesting to see new students come in and say, 'That's nothing.' And the students will defend it and say, 'Yes, it is. You need [Micro money].'" — Coordinator
- "They see [Micro] as fun and getting money to spend on Market Day and they see that as real money and carry it in their wallets and use it on Market Day." — Coordinator
- "Each month we have a large percentage of students with perfect attendance and that's due to the [Micro money] that they get." — Principal

It is important to examine this focus on extrinsic rewards (or in some cases as punishments) in light of MSI's goals as a whole school reform model. While some children, as Richmond (1973) points out, prefer "tangible" behavioral reinforcements, like money, to less tangible rewards, such as praise or good grades, or the opportunity to engage in pursuits they enjoy, a primary goal of the *MicroSociety* program is to create a context for offering what Richmond calls a "full spectrum of incentives" (113). He calls for programs to "supply different individuals with suitable combinations of extrinsic and intrinsic rewards" (113). Indeed, money may be the very thing that redirects a student's commitment to and interest in school, but to stop at the level of offering only extrinsic rewards holds little promise for a sustained focus on academic endeavors. Research on motivation[7] has long shown that rewards systems in schools that concentrate largely or solely on extrinsic motivators like punishment, grades, and prizes ultimately fail students. At worst, extrinsic motivation may reduce students' intrinsic motivation in performing certain cognitive and creative tasks. In other words, a student who enjoys and values writing plays and performing them can lose interest in this endeavor if payment becomes primary to his motivation.

Clearly, knowledge of and adherence to the fidelity of the *MicroSociety* program as a whole school reform model points to the program as a way to stem the tide of student disinterest in school and to give students a context in which to engage in endeavors and activities that intrinsically motivate them. We found that some schools are farther along than others in validating, seizing on, and developing intrinsic rewards via Micro. At these schools that are farther along, teachers and principals value, recognize, and articulate the ways that Micro taps into students natural and personal inclinations. In sum, the degree to which schools are in fact offering a full spectrum of incentives deserves attention.

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[7] See Ames C. (1978); Clifford, M.M. (1972), Deci, E.L. (1971), Deci, E.L., et al. (1981), and Sharan, S. (1986, 1988, & 1990).

Student Jobs in the MicroSociety Program: Meaningful Work

In looking at students' work in Micro ventures/agencies and their sense of its relevance to the future, we noted three key phenomena defined in the following finding:

> Finding: (1) Most students took their jobs seriously; (2) many connected their work in their Micro jobs to preparation for the future; and, (3) students articulated shared experiences, knowledge, and language of the world of work, connecting them to key adults—parents and teachers—in their lives.

"It's their job and they want to do a good job"
Students took pride in their Micro jobs. This pride was attributed by some adults to a sense of satisfaction in doing a job well, and, by most adults, to the money students earned. One principal described students' attitudes and the positive reception their pride in their work received from parents, teachers, administrators, and school visitors:

- "The kids really take it seriously. It's not a fun club activity; they take their job very seriously, and that impresses a lot of people. It's their job and they want to do a good job."

TABLE VI below details students responses to eight questions from the Student Survey. A majority of students described a sense of pride in and responsibility for their Micro jobs. In fact, over three-fourths of students overall answered in the affirmative to seven of the eight indicators of pride in and responsibility for their job (for the eighth, a majority still—62 percent—answered in the affirmative).

TABLE VI: Pride in and Responsibility for Micro Job

		Range of Responses Across Case Study Schools	
Items	Overall Percent Indicating Mostly True	Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
In Micro, I really show my teachers and friends what I can do	80%	84%	66%
In Micro, my teachers and friends really see what I can do	92%	90%	61%
It is important to me that I do my best on my job in Micro	89%	95%	70%
I feel bad if I don't do my job well	62%	94%	42%
It's important to do my job right	91%	96%	27%
I am successful in Micro because I work very hard to do my best	92%	96%	88%
When I need help in Micro, I don't mind asking for it	77%	89%	65%
I work hard at my job in Micro	92%	94%	60%

In student focus groups, students further articulated a sense of responsibility for their jobs. Many felt that teachers trusted them in the context of their jobs, and they felt pride in their jobs. A principal noted that students were generating more of their own business ideas, which translated at this school into bringing in more parent volunteers to assist new businesses. However, students did not report that these feelings of trust transferred to their class work and larger school community.

Students described their sense of pride in a variety of ways: in a job well done, in owning a business, in having specific responsibilities, in being respected, in making products of fine quality, and in passing legislation. A sample of student comments follows:

- "I like being able to do my job right. I like making what people ask me for."
- "I like being able to go there and having people ask me questions and I am able to answer them. I like keeping up with all the stuff that I have got going on. I like when people give me good ideas."
- "I feel proud that I am running my own business and have my own responsibilities, and they are real big responsibilities because I have to pay my employees and run the business good so there are no problems."
- "What makes me feel good is that most people respect me and the people who work in my venture."
- "It's really good when you see someone walk away with something you made, and they're happy about it."
- "I was proud when I was elected president. At first people didn't think we were doing everything, but every meeting we got things done, and now they have a greater appreciation for it."
- "Making laws, kids look up to you. Little kids told me I was good for trying to help them get the vote."

Micro Jobs' Relevance to the Future: World of Work

A look at data from the student survey—see TABLE VI below—shows that the vast majority of students in the eight schools see the connection that *MicroSociety* has to their future as jobholders.

TABLE VI: Utility of Micro for Adulthood

Items	Overall Percent Indicating Mostly True	Range of Responses Across Case Study Schools	
		Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
I feel that what I learn in Micro will be useful to me when I'm an adult and have a job	87%	94%	77%

Many students we observed took their jobs very seriously. We spoke with and saw bank tellers, business owners, news reporters, musicians, zoo managers, and product makers on task and filled with a sense of purpose. Through *MicroSociety* they "learn how to do business in the real world" and "see what jobs are out there." Students described not only the kinds of jobs that exist in the world-of-work, but some of the dynamics of the workplace and holding a job:

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- "[We have *MicroSociety*] so we can learn to work in businesses with other people."
- "We learn how to work together and to try not to be the boss and to try and take over. I learn how to listen."

In student focus groups, researchers asked students to reflect on their experience working in Micro, asking students if their career goals had changed as a result of Micro. Many reported that they had not changed their career goals (and, to be sure, elementary and middle school students are a long way off from making informed career choices). However, some students did offer insight into the ways in which their individual experiences in Micro had informed their thinking about the world of work:

- "I found out the president does a lot of work."
- "Micro has encouraged me to think about other things, like the bank."
- "Micro has helped me see what [court] cases are like and how to say things."

Students Connect with Adults Around Work(ing)

Students, school administration, and teachers all described a connection to the world-of-work that manifested itself in students making connections to adults—their parents and teachers. As one student summed up:

- "[Teachers trust us] because when we are here we have more responsibility to get our job done. We hold jobs just like they do. We could get fired, and they can get fired. They are learning that we can do almost what they can do."

Students talked about Micro at home. As one principal described:

- "I hear all sorts of stories from parents about what Micro is doing for their kids. It's changed talk around the dinner table: paying fines, paying taxes. I think there is a real sense of pride from the students."

In this small, yet tangible way, students now had experiences that helped them to better understand their parents and teachers. Further, some school administrators noted that this dynamic served as a way to increase parent involvement in the school community.

Capitalizing on The *MicroSociety* Program: Student Empowerment

Students (a) reported enjoying and taking pride in their job; (b) they were looking in a more informed way at the world of work; and (c) they were, as reported by school staff, coming to school with greater regularity and having fewer discipline problems. All these things were evidence that the *MicroSociety* program was meeting one of its central aims: to increase students' sense of empowerment. In defining the ways in which the Micro program affected student empowerment, and the elements of the program that were already impacting empowerment or that hold promise for increasing it in the future, we found the following:

Finding: Students felt the greatest investment in and responsibility for their ventures and agencies when:

- Adults communicated the message that the *MicroSociety* program is a central feature of the school's educational program, not an extra-curricular activity or a reward for good student behavior.
- Many or all strands were in place, offering students with diverse learning styles and interests endeavors that engage them.
- Ventures had mechanisms in place to help students continuously improve their products and services--e.g., students in charge of quality control, time for reflection on job experiences and market forces.
- Students had a voice in their choice of jobs; students were permitted to work jobs during Micro time outside of their classroom venture or agency.
- Adults invited and nurtured student leadership.

Teachers, Principals, and Micro Coordinators who saw and seized on students' enjoyment improved student confidence and self-esteem by giving students more responsibility, allowing them to "prove themselves" and feel efficacious. Students in these schools felt like they were given a tangible and significant say in their school experience. School, then, became a context—a society—over which they felt a degree of ownership. One principal noted the connection between handing over control to students and gains in self-image:

- "What I have noticed, kids are a lot more confident in what they are doing, their self confidence has really risen. I think it's because kids are empowered with a lot more responsibility with Micro. They have more leadership roles and are treated equally."

Another principal offered a specific example of the program's impact on a student:

- "Some students have turned themselves around because of [*MicroSociety*]. Our president came to us and said, "I want to produce the school yearbook..." and the Coordinator said, "You need to write a letter to parents to get money and work with a teacher and work with me to edit it and type it." So the student said, "Fine." She went to the computer and made a flyer, went to the Job Fair and interviewed students, and in two days had a crew to do the yearbook. And now they sell the yearbook for seven dollars, and they sold a lot of them."

Teachers in some schools spoke of watching their students become more mature and serious as they took on the responsibilities of their Micro jobs. One teacher observed the snowball effect this had in bettering not only students' conceptions of themselves, but the school climate as a whole:

- "If you give a student a purpose, she'll soar to the sky. If you give her a job to do, you got it. The teachers are noticing that about students. Teachers that come around to Micro notice their most troubling students like Micro. They have a purpose. They're asking their

teacher about Micro: "I want to have this job" or "Did you think about this government? That might work." They're thinking way up here, and teachers are still stuck down here." The principals who had the most to say about specific examples of student empowerment and responsibility were those most involved in their school's *MicroSociety*. They conveyed an empowering vision of the *MicroSociety* program to their staff and students. These school leaders spoke with their teaching staff about using Micro for more than financial incentive and improved attendance[8].

In *MicroSociety* programs where students had the opportunity to do work they enjoyed and found meaningful, students evidenced a strong sense of ownership of their ventures and agencies, and in some cases, the larger school community. In these *MicroSociety* programs where students had a substantial amount of responsibility had a palpable sense of excitement and energy to them. We saw students taking on significant responsibilities without adult intervention.

Reaching All Students
Researchers noted that in schools where many or all strands are in place, Micro offered a diversity of opportunities that encouraged stronger sense of student ownership and voice in their scholastic endeavors. In these schools, we observed students engaged in a variety of activities: they wrote and performed plays; they designed and produced yearbooks; they authored, debated, and ratified constitutions; they grappled with the market-worth of their products; and they argued and adjudicated involved and intense court cases. The CrimeStoppers of one *MicroSociety* program even greeted an RFA observer with a PowerPoint presentation of the CrimeStoppers program. With such a wide variety of occupations, there was a place for all students to find work that suited both their interests and the mode(s) of learning most comfortable for them.

TABLE VIII: Students' Sense of Voice in Micro

		Range of Responses Across Case Study Schools	
Items	Overall Percent Indicating Mostly True	Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
The way students get picked for jobs in Micro is fair	64%	91%	44%
The pay I receive for my job is fair	64%	72%	44%

As TABLE VIII indicates, a majority of students perceived fairness in both job placements and pay for their work. Further, students at only two schools felt strongly (a deviation of more than 10 percent lower than the overall percent, and at or under 50 percent of students surveyed) that their school's Micro program included unfair elements.

Paying Attention to Quality
Schools that provided a significant level of responsibility and choice for students also included mechanisms to facilitate the development and production of high-quality products. Adults in these schools emphasized quality and helped students to implement quality control measures. Often, this was achieved by simply hiring one or two students per venture as quality control inspectors. Students in these settings took production seriously — they made toys and games representing cultures from around the world that students enjoyed playing with; they carefully researched pet behavior and offered informative tours of petting zoos; and they wrote original

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[8] See Implementation of a *MicroSociety* Program: What Helps for more detail.

comedy routines, committed them to memory, and performed them for audiences. Students in ventures/agencies where quality was a focus not only took pride in their work, but they did so for good reason: the larger marketplace often featured several high-quality items and savvy student-consumers, given the choice of worthwhile products, avoided items they found less than compelling. Moreover, quality products went hand-in-hand with and were often the result of ventures that included literacy and numeracy skill development.[9]

Student Autonomy in Micro
Giving students more choice of what they do during Micro-time and in the *MicroSociety* program increased students' feelings of empowerment. Encouraging students to apply for jobs in ventures/agencies that interested them and allowing students to go to classrooms other than their own during Micro-time were other features of a Micro program that served to increase students' sense of empowerment. Researchers observed that older students often worked with younger students as leaders and managers. In addition to letting students move around the school during Micro-time, some schools we observed already were promoting and permitting students to start their own ventures; this kind of initiative and entrepreneurship is very much in keeping with the model of student empowerment in the *MicroSociety* program. These students told researchers about seeing the need for services and products, ranging from Ice Cream to Fitness to a Yearbook, and wrote proposals, worked up budgets, and hired staff. Student empowerment did not develop to the same degree in schools where students have less autonomy regarding the *MicroSociety* program. Students in these contexts had little or no say in job placement. In *MicroSociety* programs where students were assigned a job, students at times resented their placements, wandered the halls, disrupted other ventures/agencies, sat in an unemployment office, and gradually lost interest in the entire program. As one student observed about fellow students who don't like Micro:

- "They are unemployed and they are getting bored and really bad and think, 'If I'm going to be in the unemployment office what am I doing this for,' so they skip. Or they may not like their job at all."

Counting on Micro: Consistency
Lastly, having Micro consistently scheduled was essential to a strong and effective program. In some schools, students expressed confusion about program logistics or articulated inconsistencies that frustrated them. In a few schools the program occurred haphazardly. Micro time was cancelled to make time for things like assemblies and state-test preparation. Further, some schools, as well as individual teachers, conceived of Micro time as something to either grant or take away from students, depending on their behavior outside of program time. In these schools, students were more likely to express frustration with the program.

Other central elements of the program like income and job placement were, in some schools, contingent upon student behavior. One troubling phenomenon in some *MicroSociety* programs was the withholding of paycheck or job advancement based on behavior outside of *MicroSociety* jobs. While students in CSRD *MicroSociety* schools are often at least initially paid for their attendance, teachers in a few schools spoke of paying students more as a behavioral incentive than for their actual *MicroSociety* work:

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[9] See "Academics in Micro" for more detail on literacy and numeracy skill development.

- "Students in this school like immediate gratification. They see money as real and work hard to behave and get along. They know their paycheck is dependent on behavior, attendance, how well they walk in line. They see this, and it helps them improve."
- "Depending on their behavior...students get to take on different roles."

This focus on money as reward/withholding money as punishment occurred in concert with lower fidelity Micro programs—those that were teacher led or top-down. School leaders' roles, particularly the Principal's, influenced this manifestation of the *MicroSociety* program.[10] The notion of a paycheck as payment for a job was not clear to students because teachers focused more on adding or taking away a student's money based on behavior and wearing uniforms.

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[10] See "Professional Development: Embracing Micro, Seeing Opportunities, and Seizing Opportunities" for more detail on school leaders' influence on *MicroSociety* programs.

Academics in the *MicroSociety* Program

Does participation in the *MicroSociety* program improve students' reading, writing, and math skills? If so, how? If not, why not? We approached answering this question from two directions. First, we looked at how students were using literacy and numeracy in their Micro ventures/agencies. George Richmond describes the importance of measuring the way that students' employment experience in the *MicroSociety* program affects their academic growth: "It would therefore behoove the researcher to measure how well children digest such primary experience. . . Instead of assessing the effects literacy has on employment and income, measure the effects employment and income have on literacy" (258). In line with Richmond's recommendation, we focused on whether students were using reading, writing, and math in ways that could deepen their conceptual understanding and strengthen their skills in those three academic areas. We also examined how central Micro concepts — i.e., applied learning and student empowerment — were being integrated into classroom teaching.[11]

Finding: Moderate numbers of students reported that they used reading, writing, and math in their ventures/agencies.

MICROSOCIETY contends that if ventures/agencies provide opportunities for applied literacy and numeracy practice, students will improve their reading, writing, and math skills. In our *MicroSociety* student survey, only about half the students reported using reading, writing, or math in their Micro jobs (see TABLES IX, X, & XI on the following page). In addition, less than half of students reported that they needed to read and write well to do their jobs and only a little more than half reported that doing math well was important for their jobs.

These data in TABLES IX-XI raise questions about what students are doing during Micro time and how students define the tasks they perform in terms of academic content. Are students not engaged in applied learning tasks for their Micro jobs? Or, alternatively, are students just not recognizing when they use reading, writing, or math? A principal raised concerns on this point:
- "This is an area we need to work on. The students are having so much fun, they don't realize what they're doing, that they're actually working harder. It's not less but more work. They know the level of math or responsibility they need, but they still see it as just plain fun."

Students' lack of recognition of academic skills may account for the mixed survey results, but more research needs to be performed to validate this conclusion as well as to demonstrate the impact student recognition of basic skill usage may or may not have on impacting achievement.

Finding: Students' responses to reading, writing, and math use in ventures/agencies varied across schools.

We also found variance across schools in the importance placed on applying and developing academic skills in student jobs. For example, in reading, seventy-three percent students from one school reported using reading in their jobs, while only thirty-nine percent of students at another school reported reading (see TABLE IX below). These data raise interesting questions that will

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[11] This piece of our research was more exploratory in nature--we started with fewer expectations for what kinds of interaction we would find in the classroom.

require further study. Our observations in schools also indicated a broad continuum in the degree to which students actually used and developed skills.

TABLE IX: Reading

Items	Overall Percent Indicating Mostly True	Range of Responses Across Case Study Schools	
		Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
On my job, I use reading	50%	72%	39%
On my job, reading is important	51%	71%	38%
To do my job well, you have to read well	43%	67%	33%
On my job, I use books and/or reading materials	35%	65%	25%
Micro has encouraged me to read more	33%	48%	18%

TABLE X: Writing

Items	Overall Percent Indicating Mostly True	Range of Responses Across Case Study Schools	
		Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
On my job, I use writing	59%	73%	48%
On my job, writing is important	54%	76%	42%
To do my job well you have to write well	39%	49%	27%
On my job, I need to know how to write clearly because other kids will read it	59%	78%	44%
On my job, I use a word processor computer program	20%	40%	16%

TABLE XI: Math

Items	Overall Percent Indicating Mostly True	Range of Responses Across Case Study Schools	
		Highest Percent Indicating Mostly True	Lowest Percent Indicating Mostly True
On my job, I use math	58%	76%	40%
On my job, it is important to do math accurately	55%	71%	40%
To do my job well you have to do math well	52%	78%	33%
On my job, I use a calculator	34%	48%	17%
On my job, I use a spreadsheet or database computer program	16%	44%	12%

Micro as Context for Applied Learning

MicroSociety program planners intends to affect student learning and students' relationships to literacy and numeracy by making learning more applied, thus more purposeful. They propose that as students become citizens in a *MicroSociety* program, they will feel increased levels of responsibility for and enthusiasm about learning and their academic performance. Students will, in Richmond's (1973) words, engage in "practice" that increases "personal efficacy" (280). The founders believe that ventures/agencies contribute to an overall increased momentum in establishing a knowledge culture. Students know that other students are counting on them, that their work is valued, and that they are learning for a purpose. This new accountability and increased efficacy can have significant impacts on how students learn.

> Finding: Ventures/agencies fell along a wide continuum in their effectiveness at creating rich and robust settings for students to strengthen their literacy and numeracy skills.

In this section of the report, we will describe the broad range of students' engagement in academics within *MicroSociety* programs. *MicroSociety* program ventures/agencies fall on a continuum in their success at incorporating literacy and numeracy practices. Ventures/agencies that were more successful at incorporating literacy and numeracy appear to generate student enthusiasm for the *MicroSociety* program and turning it into excitement about learning in their Micro jobs. However, more research is necessary to substantiate this observation.

To illustrate the wide disparity in the success of ventures/agencies developing literacy and numeracy skills, we offer the following analysis of three Micro ventures. First, we examine one venture that was not capitalizing as of yet on this new mode of applied learning and how it affected the students involved. Next, through analysis of two ventures we observed, we will draw out the potential positive impact *MicroSociety* can have on student learning—on fundamentally reshaping the relationship students have to knowledge acquisition.

A Venture that Does Not Yet Offer Opportunities for Academic Growth: Games
From a researcher's field notes:
- "In 'GAMES,' students came to the venture to play video games. The teacher sponsor said that the venture attracted a devoted following of some boys who came every time they had a day off. When I was at the venture, there were seven boys playing video games. Two boys and a girl were working at the venture. They said that they had been unemployed and had recently been assigned to the venture. Their job was to collect the money for the tickets. They didn't know how the venture started or any other students that were involved. They had little interaction with the teacher except to turn in the money at the end of the Micro period.

"Games," as currently manifest, did not engage students in developing skills in reading, writing, and mathematics. Moreover, it appeared that the teacher chose the venture, not the students, and the teacher failed to develop the academic connections available for the venture. Consequently, students were not challenged in any of the potential literacy and numeracy practices such a venture might include. Further, at the stage this venture was observed, students had not yet engaged in planning how they might enrich the activities of the venture for either themselves or their customers. The Games venture lacked important interactions between society members, community connection, and accountability to the greater community (students didn't make or

develop the products consumed). Many opportunities for higher order thinking and literacy had not yet been entertained. Students were not considering the needs of their audience as we had observed in product development nor did they formulate a marketing strategy. Student excitement for the potential intellectual content had not yet been tapped in this venture.

This venture has potential. Students might research the origins of the games they sold, describe how mathematics plays a role in computer programming, or work with a teacher to try to program their own simple computer game. Students might develop training manuals for their consumers with instructions about the best way to approach a game, short cuts or game secrets and links to websites on the game. Students might research the costs of various video game systems and conduct a cost-benefit analysis of purchasing various systems. Students might create an advertising campaign to encourage students to donate or trade games at the Games venture. It held many possibilities to develop student learning and engagement, but adults had not yet helped students to see new arenas for learning.

Successfully Capitalizing on Learning Opportunities: Petting Zoo and Kids' Kitchen
From a researcher's field notes:

- "I went to the fourth grade's 'Sensational Science' venture. It was the venture's opening day for its Petting Zoo. When I arrived three girls and seven boys were stationed around the room. The centerpiece of each station was an animal: a tortoise, a snake, a gerbil, a lizard, etc. Behind the animal's cage or box was a display poster with important facts about the animal: Type, Food, Natural Habitat, etc. This information was neatly printed. There were also illustrations.

  In a few minutes, 15 kindergartners filed into the room, eager to be the zoo's first visitors. The fourth graders had well prepared scripts of interesting facts about their animals. They gently coaxed the sometimes reluctant kindergartners to hold the animals.

  Nick, a special education student, spoke at length on the habitat of the tortoise. He pulled several books from the classroom's library to show his audience where he had gotten his information."

"Sensational Science" provided a variety of opportunities for students to develop their literacy skills. To prepare for the petting zoo, students conducted research on a chosen animal. They used reference books as well as the internet as sources of information. Throughout their preparation they talked with their teacher about the visitors to the zoo, planning their presentations around what they thought would pique the interest of younger children. They deliberated about what information they should emphasize in their oral presentations and what should appear on advertising posters. They planned and rehearsed how they would handle the logistics of opening day: what if everyone wanted to see the same animal at the same time?; what if the kindergarteners were afraid of the animals?; and, what would they need to show the children about how to hold and pet the animals? As reading and writing were central to this venture, students practiced and developed important and nuanced literacy skills. For example, they worked with the concept of audience, thinking about the kindergarteners who would be their first customers. Further, they thought about the relationships between oral and written texts.

Student motivation and focus increased with the pressure of performing a service for a specific audience: members of their community. Students wanted to create high quality products for their

peers — products students would understand and appreciate. Not only did the students in the venture learn in the process of developing their products, they were concerned with what their audience members would learn. They focused on presentation logistics — how to ensure that each consumer would learn. Students in this venture participated in intense and motivated research while also culling the most salient and interesting information for their peers. This venture allowed students to consider important elements of literacy — a text's interaction with the reader and speaker's interaction with the audience. If these same students engaged in a similar exploration of content outside of Micro — e.g., writing a research paper to turn in to their teacher — it would lack at least some degree of the sophistication seen here in terms of the research techniques, problem solving, reflection, and presentation. Working with and for other students pushed students to learn in new and dynamic ways.

Kids' Kitchen
From a researchers field notes:
- "For this venture the students came up with a recipe and worked on math and made the recipe and then put it in their own words. In this venture, about 25 third graders worked on creating a recipe book. Students were expected to develop a favorite recipe — with a special highlight on mathematical measurements and conversions as well as kitchen chemistry. For example, one student we talked to, Stephanie was developing a recipe for banana bread. She started with a recipe she had found in a cookbook. She experimented in making the bread at home, with her parents help. She spent time analyzing the results and thinking about how she could improve recipes to get the best bread. Stephanie was working on developing her own recipe with new measurements for some of the ingredients. During this section of the process, students learned about fractions and measurement conversions. For example, Stephanie decided she needed more bananas in the recipe, so she learned about fractions-- quarter cup, half cup, etc. — as she worked on improving the recipe. The students would be working on their recipes for a whole year, by the end creating a recipe book for sale."

  "Throughout the year, students also worked on mini-projects to sell during Market Days. This market day, students were selling fraction sandwiches. Both buyers and sellers had to use their knowledge of fractions to complete the transactions. The students listed the prices on the menu by fraction. You could buy a quarter of a sandwich for so much, a half for so much — both the students buying and selling at this venture seemed excited about the concept."

In Kids' Kitchen, students went beyond currency transaction to consider other applications for mathematical skills: measurement, cooking chemistry, dividing portions through fractions, pricing products. Students had many opportunities to practice a wide variety of mathematical skills, to engage in applied learning. The sophistication of the mathematical skills could also be varied based on the developmental level of the student. A notable component of this venture was that the process emphasized audience reception — how others would like their recipes, if they were readable and easy to follow, and if the amounts of various ingredients were correctly balanced. Students were able to connect how their understanding of math affected others in this community.

The analysis of three ventures, illustrates the compelling potential for applied learning and demonstrated both academic content — what students learned — and process — how students

learned. We next turn to an explicit examination of research question #3, looking at *MicroSociety's* impact on students reading, writing, and math abilities.

Reading, Writing, and Math: A Close Examination

In researching and articulating both actual and potential impact of the *MicroSociety* program on reading, writing, and math, we looked at a variety of data including student survey responses, venture/agency, market, and classroom observations, student focus group interviews, and interviews with teachers, Micro Coordinators, and principals. Each data source provided its own unique lens for viewing student academic growth. We looked at both *MicroSociety* program ventures/agencies and in regular classroom settings to see to what extent students used reading, writing, and math skills in ways that would further their conceptual understanding and skill development. We also looked for evidence of students using higher order thinking skills as part of their reading, writing, or math skills. In the next section of the report, we specifically analyze student and staff's impressions of the literacy and numeracy skills students learned in their Micro ventures/agencies.

Numeracy
As we assessed Micro ventures/agencies for numeracy skill development, we kept the following questions in mind:
- How much time did students spend performing mathematical equations or applying mathematical reasoning in their jobs?
- What types of mathematical tasks were students asked to complete? How sophisticated were the tasks? Were students asked to complete equations involving multiple steps? Were tasks formulaic or were students required to use higher order thinking skills to develop solutions for a variety of different mathematical tasks?
- Were students asked to identify the math skills used to complete their jobs? Did teachers help students name the skills they were using as they completed the tasks for their jobs?

Finding: Numeracy practice and skill development revolved mostly around transactions—of goods and services. There is additional evidence of students engaged in numeracy in other ways: keeping inventory, developing budgets for ventures/agencies, and grappling with pricing items for sale.

Throughout all the *MicroSociety* programs we observed, both adults and students thought of math practice first in terms of currency. One site coordinator describes:
- "They are strong with math, they count the money, they can tell you anything about the money, but that helps with strengthening their math skills."

A teacher offered an explanation of math in her venture:
- "I can just stick to math, we do a lot of math. Each student in my class has their own bank account and we do profit and loss, averaging, a lot of math concepts."

Another teacher explained students' numeracy practice this way:
- "Math they use because they have to add up the hours they work, times of days they've been there, if they have had their id, if they don't have their ids they don't get paid. So they definitely use math."

Teachers emphasized mathematical practice primarily in terms of working with simple equations. Rarely did they reference tasks that gave students practice in mathematical reasoning outside of problem solving, or higher order thinking (for example using logic or game theory as mathematical application).

The use of math varied across venture/agencies. Students reported a variety of mathematical tasks performed for their Micro jobs. We divided their responses into three categories—arithmetic, counting, and higher order mathematical reasoning. Here are some of the examples students gave and we observed of the variety of math practices used during Micro time. [12]

Arithmetic	Counting
Giving change	Counting out money
Dividing up money	Counting how much we sell
Adding and subtracting	Counting out beads
Calculating gross and net pay.	Counting forms
Cashing checks	Paying rent
Tracking the amount of money kids owe to the court.	Taking inventory
	We use math to count the number of beats in
Calculating payroll	each measure when we sing
Banking	

Higher Order Mathematical Reasoning
Estimating
Figuring out how much to charge for your
products.
Learning the angles of kicks and punches in Tae
Kwando
Angle of brush swipes in painting
Solving problems on a computer

The variation in student responses points to a disparity in numeracy skill development in ventures/agencies. Responses indicating higher order mathematical reasoning numbered fewer than responses referencing basic counting. To raise the level of academic integrity in Micro ventures/agencies, school staff need to be able to see the opportunities for applied learning inherent in ventures/agencies. Staff need to have concrete images of well-developed ventures/agencies so they can create richer learning opportunities for their students.

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[12] Responses are given verbatim from a part of the focus group interview in which students were asked to record on a sheet of paper their writing practices in Micro.

Literacy

As we assessed Micro ventures/agencies for literacy skill development, we kept the following questions in mind:

For writing:

- How much time did students spend writing? How important was writing to completion of their jobs?
- What types of writing were students asked to complete?
- Were students asked to make connections or reflect on their experiences?
- Were students asked to create complex sentence structure, paragraph development, etc.?
- Was there a revision process in place? Were students asked to reflect and improve on their own writing? Did teachers or peers identify writing weaknesses and work with individual students to develop their skills?
- Were students asked to think and write collaboratively?
- Was the writing work self-initiated or assigned by school staff? Was student writing published or presented to an audience? Were students asked to target writing for a specific audience?
- Was reflective writing a requirement of job performance?

For reading:

- How much time was dedicated to reading as part of students' work in *MicroSociety*? What level of concentration was devoted to reading as part of students' work in *MicroSociety*?
- What types of material were students reading? How sophisticated was the language and content of the materials?
- Did students use comprehension skills in their jobs? If so, how much was comprehension necessary to complete tasks?

Finding: Schools were capitalizing more fully on opportunities for development of literacy than numeracy in Micro ventures/agencies. The literacy-rich ventures/agencies often related to well-developed Humanities strands, an area that optimized teachers' ability to infuse Micro jobs with academic content. This dynamic may reflect that teachers' familiarity and comfort with this strand as compared to the economic strand.

We first examined the literacy skill we found to be a more-developed feature of many *MicroSociety* programs: writing. Writing practices varied widely within and across ventures/agencies and schools. We found that programs incorporating a wide variety of ventures/agencies did better at creating opportunities for rich literacy in student jobs. Researchers observed some ventures/agencies in which students engaged in rich writing practices—creative writing, developing scripts, creating letters and business documents, or producing research reports. In ventures/agencies such as these, students were more likely to write for a specific audience and to spend time reflecting on the specific style and form appropriate for the audience. Using writing for reflection—on either process or meta-cognition, or both —was not present in most programs we observed.

In focus group interviews, students identified a variety of ways writing was incorporated into their jobs. Many students interviewed reported using writing only in tasks like filling out forms or writing checks. Other students gave examples of more complex writing—writing that is contextualized and concerned with effectively communicating content to an audience. There were

four categories of student response--perfunctory, communicative, reflective, planning. Student responses[13] included:

Perfunctory	Communicative
Writing checks	We write resumes.
Warehouse forms	In the TV studio, we have to write scripts.
Writing orders	Subpoenaing for court
Writing in my bank book	When you mail someone a letter
Filling out a jury form	I had to write a job application.
Filling out accounting booklets	Creating official affidavits, delinquent notices, notices of employee investigation
Filling out order forms	Creating commercials
	Writing letters to companies
	Making advertisements

Reflective	Planning
For interpretive dance, we write in our portfolios	In drama, we use writing for blocking and stage directions
	Writing out our comedy acts

When researchers asked teachers, principals, and Micro Coordinators about student writing during *MicroSociety*, their comments reflected a similar continuum regarding richness and depth. Some ventures/agencies provided worthwhile opportunities for student writing, while other ventures/agencies required little or no writing.

Teachers described writing in their ventures/agencies in the following ways:

- "Well, as you saw today in the writing portion, what I did with the first couple of classes, I asked the students why they had applied for the Micro Village Police and what they would like to do, also to give me ideas, what they would like to do in our venture, what ideas. They came up with great ideas in their one page essay, 'Oh, we would like to go on field trips. We would like to have a policeman come and talk to us.' So that was kind of in the Language Arts area."
- "Also the writing, since they have to fill out applications and they write in journals we may ask them to write why Micro is important to them."
- "We wrote a lot of letters to students and teachers, if they get a response back they get extra-credit for showing that they went to the post office, mailed the letter and got a response."

While teachers mentioned a variety of literacy tasks, reading and writing were not central to students' Micro jobs.

Students' reading practice and skill development also varied from venture to venture.[14] School staff described a variety of reading practices in ventures/agencies:

"The reading they do is on how to make products out of recycled things. So maybe reading those books." —Teacher

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[13] Responses are given verbatim from a part of the focus group interview in which students were asked to record on a sheet of paper their writing practices in Micro.

[14] Researchers recorded more instances of students using writing and math than reading during their time observing MicroSociety programs.

"We have a lot of stuff that we give to them to read, each venture, some ventures don't, but some ventures, things they give out or the facilitator gives out stuff and we pass it on to students, the constitution, just cashing a check." —Teacher

"What we're really doing is taking more core curriculum and working it into Micro. One of our school improvement goals is for each venture to identify 20 books, our goal is for kids to read at least 20 books. We have to get creative with books in some ventures. But they are doing some neat things." —Principal

The program referenced in the above quotation from a principal was one of few that intentionally incorporated reading throughout their Micro program. Reading practices were often coincidental, rather than planned and integrated.

These data raise important questions: To what degree are students asked to participate in rich literacy practices in their Micro jobs? What level of literacy practice is required for students to develop their skills? To what degree are employment settings actually building students' literacy skills? Another issue raised by this data has to do with the planning and approval process for ventures. At most schools leaders did not require descriptions of literacy or numeracy opportunities in business plans.

A Context for Literacy-Rich Ventures: The Humanity Strand

Humanity strand ventures consistently offered opportunities for student literacy development. Only three schools had begun to implement the Humanities Strand. Ventures in this strand ranged from student publications, like newspapers and literary magazines, to student performances. Participation in ventures involving student performance was one solid way to promote student literacy. Students working in these strands had greater exposure to and development of literacy. For example, one teacher described the venture he oversaw this way:

- "I run the repertoire theatre, both sessions with 32 children. In the fall we did 'Midsummer Night's Dream' with full costuming and sets. . .The Repertoire Company is working on a soundtrack of Peter Pan, which we will write a book for, and incorporate reading on elementary school level and it's written by elementary school children, to accompany it, it's an in-house multi-media project. A different type of acting for the children, because they got to use voice only."
  Interviewer: *Are you hoping to finish by the end of the year?*
  "No, it's too big a project. Right now we are collaborating with show singers, our dance ensemble, our art teacher and our wood shop on our musical, "Into the Woods." That's taking a lot of time, back-to-back weeks in April and May. What's proposed for next year we are doing a big Japanese festival in the fall."

This repertoire theatre venture succeeded in creating many access points for students to develop their literacy skills. Not only were they reading and writing, students were (a) analyzing texts to determine the best ways to express meaning to audiences; (b) recording and developing their own interpretations of classic literature; and, (c) were developing their skills for oration and performance. Additionally, students worked with a variety of mediums affording an exploration of new learning styles.

Repertoire Theatre is just one example of the wide array of opportunities the Humanity Strand offers for focused literacy practice. Other venture possibilities include student comedy routines, student-authored dramatic performance, literary publications, school newspapers, and student yearbooks. Humanity strand ventures offer rich opportunities for applied literacy because writing or performing for an audience are applications of literacy skills that students find compelling. Students create prose, poetry, drama, or comedy for their peers — keeping literacy and connections to audience at the center of their work.

It is important to keep in mind that one explanation for Humanity Strand ventures offering more opportunities to develop literacy is that teachers are more comfortable with the content and activities inherent to this strand, and more easily infuse them with academic content. Teachers may have more experience or training around integrating literacy skills into performance or service-based projects.

MicroSociety in the Classroom

Our second approach in investigating the relationship between academic improvement and the *MicroSociety* program was to explore if and how the *MicroSociety* program's ideas and/or experiences were incorporated into students' regular classroom work. We investigated classroom integration in two ways — we interviewed school staff and we observed academic instruction. Generally, we found that teachers and school staff did not emphasize integrating students' experiences in Micro or Micro's approach to learning into the classroom. Teachers rarely mentioned having discussions or training around this type of integration.

> Finding: Most teachers reported that they did not yet integrate Micro concepts into their classroom curriculum and instruction.

When we asked teachers about how they used Micro in their regular classroom teaching, many had difficulty developing responses. The exchange below exemplifies many of the answers we received:

Interviewer: Would you give me an example or two of how you've been able to integrate some of the concepts in Micro into your regular classroom curriculum?

Teacher 1: I don't know.

Teacher 2: We haven't really, nothing from Micro we've integrated into the classroom.

Interviewer: What about other teachers?

Teacher 1: I'm sure the younger teachers, our kids know how to add and subtract and do a checkbook. I'm sure the younger grades have gone over, this is how you do your checkbook, this is how you add and subtract, this is how you get your deposit slip, our kids already know how to do that.

Interviewer: Has integration been a topic of conversation and/or training among teachers at your school?

Teachers 1&2: No, no I don't think so.

Overall, teachers and school staff did not make classroom integration a priority and stated that little information or support were provided to teachers on this subject. Other school staff mentioned early stages of Micro concept integration. School leaders made comments like, "All teachers do this a little," and, "I would say a few teachers do it a little." One teacher described the

role Micro plays in his classroom this way, "I'm reinforcing it verbally, telling them if you don't learn to read you won't be able to do Micro stuff, if you don't learn to use a calculator in the classroom you're not going to be able to work in some ventures." Teachers did not talk about Micro influencing their teaching approach in a significant way.

In our classroom observations, we found a few teachers integrating Micro's approach to learning into their classroom teaching. One teacher had developed a mini *MicroSociety* within his classroom. His class had its own government system that negotiated classroom management. He noted significant changes in student behavior and motivation as the students in his class held each other accountable for their behavior. Another teacher used students' experiences in the *MicroSociety* program as subject matter for a series of student essays. Students practiced the writing, editing, and revision process while reflecting on their learning and experiences in Micro. However, by and large we found very few examples of teachers meaningfully incorporating students' experiences in Micro with their classroom learning.

Recommendations

Recommendations for MICROSOCIETY Inc.:

In some schools where poor faculty relationships, weak leadership, and/or low expectations for students existed previous to the introduction of the *MicroSociety* program, implementation was very weak. In these schools it is quite unlikely that the *MicroSociety* program will have the desired impacts. Furthermore, poor implementation may actually be reinforcing low expectations for students. *MicroSociety* Inc. staff need to develop procedures for identifying these problematic school settings as early as possible and for providing intensive support for program improvement.

Literacy and Numeracy as a Focus

MSI staff say that the development of students' literacy and numeracy skills through the *MicroSociety* program is a top priority for their R&D efforts and training strategies. Our research suggests that school staffs may not view the *MicroSociety* program as an intervention directly targeted at academic achievement in these areas. It also suggests that early implementation of the humanities strand promotes the ideals of citizenship and responsibility as well as numeracy and literacy practices. Other concrete recommendations for MSI include:

- Focus attention on literacy and numeracy in written materials and trainings.

- Provide a blueprint for a phased approach to curriculum integration. For example, Phase I: Establish literacy and numeracy rich ventures/agencies. Phase II: Incorporate activities that engage students in oral and written reflection about their experiences and learning in *MicroSociety*. Phase III: Integrate Micro concepts and pedagogical approach into the classroom curriculum.

- Establish criteria and concrete images for literacy and numeracy rich ventures/agencies and develop strategies that support teachers in the creation of literacy and numeracy rich ventures.

- Develop structured assessment processes in which teams of teachers, administrators, parents, and students assess the overall strengths in a school's *MicroSociety* and make recommendations that build on those strengths. These teams should also assess the quality of *MicroSociety* ventures/agencies and provide recommendations for improvement.

- Assess the degree to which individual ventures/agencies and each school's *MicroSociety* program as a whole focus on students' intrinsic motivation, validating and offering opportunities for students to engage in activities and pursuits via Micro that build on their personal interests. Further, MSI should help schools establish a timeline for moving forward in this area — moving away from a primary focus on extrinsic rewards.

Training and Support

Our research indicates that school staff value the training they receive from MSI. It is clear, however, that school staff members need more intensive hands-on coaching as they implement not only their *MicroSociety* program, but also the individual ventures/agencies. MSI needs to design a training and support system that

- Addresses the role of principals in the planning, implementation and assessment of the *MicroSociety* program.

- Addresses individual needs of teachers in and out of the classroom.

- Capitalizes on the "teachable moments" that occur for teachers and students as they go about their work in the *MicroSociety* program.

- Makes effective use of MSI's written materials and networked technology.

Recommendations for Schools

Academic Rigor and Student Empowerment

Clarify and explicitly articulate expectations for academic content in *MicroSociety* program ventures/agencies. Establish a process for reviewing and assessing the degree to which ventures/agencies offer students opportunities to develop literacy and numeracy skills.

Training and Support

Do not underestimate the amount of support that teachers need as they get Micro ventures/agencies up and running. Build in time for administrators, Micro Coordinators, and implementation team members to support and coach teachers.

Student Empowerment/Responsibility

Our research found that the vast majority of students take their *MicroSociety* job seriously. There are, however, ways that schools could further increase student ownership and accountability. For example, schools staff could create roles for students in the planning, implementation, and assessment of *MicroSociety* program activities (e.g. take students on site visits to other schools and encourage them to report back to their peers; have students develop processes and criteria for "quality control" in their venture/agencies.) It is important that students be given the opportunity to choose their job as soon as possible and that expectations of responsibilities are made clear to them and consistently enforced.

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Appendix A: Methodology and Design

Items Included:
Case Study Sampling Procedures
Student Survey Revision and Analysis Procedures
MicroSociety Evaluation Fieldwork Guide, Spring 2001
MicroSociety Student Survey, Spring 2001
Site Coordinator Telephone Interview Protocol

Case Study Sampling Procedures

The *MicroSociety* Evaluation team at RFA initially defined three general distinctions in school context that we thought relevant to explore in our Spring, 2001 field work: whether a school is located in a rural, urban, or suburban setting. A range of these contexts would allow us to see how *MicroSociety* serves schools with similar outcomes (thus far) in poor student performance, i.e., rural and urban schools, despite the widely disparate cultural contexts these schools find themselves serving. In addition to the community context of a school, we wanted to observe *MicroSociety* in both Elementary and Middle Schools.

Once we defined these levels of sampling, we then looked at schools that clustered in relative proximity to each other to facilitate travel to as many sites as possible in the field work. After finding a range of community context in CSRD schools located in Florida, Northern California, and Philadelphia, we then looked at MSI information from each school in these regions. We used a form to assess all schools' responses on their **Readiness Assessment Form** in the following areas:
- School Data, i.e., Staff/Student Demographics
- Support, i.e., Principal/Staff Commitment
- Curriculum
- Technology
- Budget Parent/Comm. Support
- Additional Questions
- Other

The evaluation team wanted to avoid visiting schools in very early stages of implementation or with already-articulated lack of staff and/or administrative support. Visiting schools too early in their implementation of *MicroSociety* would tell us little about the program's impact, or potential impact, on the school. After ruling out a few schools in Florida, Northern California, and Philadelphia, we then worked with MSI staff, tapping into their knowledge of each school to finalize a list of eight schools: 5 Urban, 2 Rural/Suburban, and 1 Suburban.

RFA staff then contacted schools and made arrangements for site-visits. Most site-visits lasted an entire school day, including interviews with administrators, implementation team members, teachers, and students. Further, most site-visits coincided with Micro-time, and in a few cases a market day.

Student Survey Revision and Analysis Procedures

Revision and Drafting of the Spring 2001 Survey

Kutzik Associates and RFA Staff worked together to revise the *MicroSociety* Student Survey after its administration in year One. Factor analysis (i.e., PCA--principal component analysis with varimax rotation and eigen root deselection) was used to carry out empirically based data reduction. This technique was applied to each of the four sections of the questionnaire that used the four point "strongly disagree, disagree, agree and strongly agree" format. The results make it possible to see the underlying "factors" or empirical constructs supported by the data. Once this is done, it is possible to reduce the number of items representing the construct. For example, if six items seem to measure a construct about positive group process experience, it is possible to choose two or three of these items to sufficiently measure group process experience thereby reducing the overall length of the questionnaire. Discussion and further explanation of factorial techniques are beyond the scope of this report. The PCA results provided good guidance for shorting of the questionnaire.

After the factor analysis procedure, RFA and Kutzik Associates deleted statistically poor or redundant items and then added items towards making the survey data as robust as possible a valid and reliable measure of student's opinions regarding *MicroSociety* and their experiences in their school's program. RFA and Kutzik Associates also worked with MSI staff to finalize the survey questions. MSI staff drafted additional questions for consideration by RFA and Kutzik Associates, some of which were included in the final Spring 2001 Survey. A final, five page survey was then distributed by MSI Trainers in all CSRD schools in the Spring of 2001.

Analysis of the Spring 2001 Survey for this Report

The tables in the report comparing data from a Robust Program to a Struggling Program present school data in terms of percent of respondents indicating 'mostly true' to selected items on the student survey conducted by Kutzik Associates. The items were selected to correspond to relevant constructs in this report as well as to provide independent corroboration for the observation and interview data collected by RFA. Each table presents three columns, one for each of the two schools and one displaying the 'overall percent' for the total sample of all eighteen schools participating the MicroSociety CSRD initiative. Analysis focuses on the differences between the 'observed percentage' of the individual school and the 'expected' percent for the 'overall mean' representing the responses of 1810 sampled students from all of the schools. Percentages differences of 5% points between the school and overall percentages are indicated by **boldfaced** figures in the columns for the individual schools. These boldfaced percents represent significant differences from the overall mean both in terms statistical significance at the .01 level or better as well as the effect size being large enough to be a substantively meaningful difference from the pool of CSRD sampled students as a whole.

Table of Contents

MICROSOCIETY Evaluation

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Fieldwork Guide
Spring, 2001

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The broad research questions for this evaluation are:

1. What is the impact of the *MicroSociety* program on student achievement (standardized tests, promotion, and retention rates) and student engagement indicators such as attendance and disciplinary infractions?

2. What is the impact of the *MicroSociety* program on students' sense of empowerment and their attitudes toward school and its relevance to their futures?

3. Does participation in the *MicroSociety* program improve students' reading, writing, and math skills? If so, how? If not, why not?

Our major goals for this year's qualitative research are:

- To understand program implementation more deeply so that we can strengthen the program implementation measure for the overall study.

- To collect qualitative data on questions 2 and 3.

We will provide MICROSOCIETY staff with oral feedback on emerging issues from our site visits.

Although each site visit will differ, the following is a list of research activities that might occur:

Individual interviews

Principal, Site Coordinator, other members of the Micro Implementation team

Focus group interviews
Students (6-8)
Teachers (3-5)

Observations
MICRO time
Classrooms of participating MICRO teachers
Implementation Team meeting
Other school activities occurring on the day of our visit

Program Adoption and Expectations

1. How did your school hear about Micro and decide to adopt it? What were Micros's selling points in terms of its benefits to your staff, students, and school? What's your current assessment of the degree to which Micro is a good match for your students? Your staff? Your school goals? ** What would indicate to you that Micro is a success at your school?**

Program Implementation

2. What, if anything, would you do differently in the adoption process?

3. How many students does Micro serve at your school? In what grades? What did you take into consideration when you decided which grades and classes would participate? Is there anything you might change about which students and teachers are currently participating? If so, why?

4. What did you take into consideration in thinking about how to schedule MicroSociety? How is it scheduled? Is the scheduling working? How might you change it?

5. What leadership groups/teams do you have in your school? Do you have a team that oversees Micro specifically or does the leadership team handle that? Does your school have a Micro implementation team? If so, who's on it? What does the implementation team do? How often does it meet? What were key items that you discussed at one of your most recent meetings? What's are the strengths and weaknesses of your team? How effective would you say your MicroSociety implementation team meetings are? *Very effective, Effective, Not effective*

6. Do you have a fulltime Micro Coordinator? What's the role of the Micro Coordinator here? What are the Site Liaison's Micro responsibilities? What responsibilities does the Site Liaison have in addition to Micro? What are the strengths and weaknesses of how the Site Liaison position at your school?

7. What training activities have taken place at your school? Please describe (in classroom coaching, workshops, etc.) Who provided the training and how has it been received? What training do you feel would be particularly helpful to your staff at this juncture? Have any staff members participated in off-site training. How much time do you save for Micro in staff development meetings?

8. How would you describe the difference between what MICROSOCIETY looked like in your school last year and what it looks like this year? What has changed?

1. Tell me a little about you and your role and responsibilities in terms of MicroSociety.

Program Implementation

2. When you encounter questions/problems with Micro who do you turn to for assistance? Could you give an example?

3. What training activities for MicroSociety have taken place at your school? Please describe (in classroom coaching, workshops, etc.) Who provided the training? In what ways was it helpful? What additional training do you feel would be particularly helpful to you at this juncture? Have you participated in off-site training.

4. How would you describe the difference between what MICROSOCIETY looked like in your school last year and what it looks like this year? What has changed?

5. Think a bit about the visibility of Micro in your school. How visible is the program to staff, parents, students? *Ask the interviewee to rate the level of visibility (Very visible, Moderately visible, Little visibility) for each of the three constituencies and to explain why s(he) gave it that rating.* What has promoted the visibility of Micro? What has gotten in the way?

6. What would you say have been the biggest challenges to implementing Micro at your school?

7. What would you do to strengthen Micro at your school? i.e. training, professional development, etc.

Students & Micro

8. What do you think are students' perceptions of Micro?

9. What changes, if any, have you noticed in student behavior? In attendance?

10. What are you pleased about in terms of what your students are getting out of Micro?

11. Have you noticed any changes in
    I.   your classroom instruction and teaching style since implementing Micro?
    II.   How teachers relate each other?
    III.   Your/others perception of student potential changed since implementing Micro?

12. Has Micro provided more leadership opportunities for your students?

Integration of Micro

13. Would you give me an example or two of how you've been able to integrate some of the concepts in MICRO to your regular classroom curriculum? To what degree do you see other teachers in your school doing this? [*Almost everyone does it a lot. A few teachers do it a lot. Almost everyone does it a little. A few teachers do it a little. No one does it.*] Has integration been a topic of conversation and/or training among teachers at your school?

14. Do you see students making connections between Micro and what they do in their regular class work? Would you give me some examples? How do teachers help students make connections between classroom curriculum and Micro?

15. Could you give me some examples of how students use reading, writing and math in their Micro jobs? How do you see them developing reading, writing and math skills in Micro?

9. Think a bit about the visibility of Micro in your school. How visible is the program to staff, parents, students? *Ask the interviewee to rate the level of visibility (Very visible, Moderately visible, Little visibility) for each of the three constituencies and to explain why s(he) gave it that rating.* What has promoted the visibility of Micro? What has gotten in the way?

10. What would you say have been the biggest challenges to implementing Micro at your school?

Integration of Micro

1. How would you describe your school's strategy for improving the achievement of your students? How do you see MICRO relating to and enhancing that strategy? What is the common purpose? How does it relate to the rest of Micro?

2. Have you noticed teachers integrating some of the concepts that kids encounter in MICRO into their regular classroom curriculum? Please give me some examples. To what degree do you see teachers doing this. *Almost everyone does it a lot. A few teachers do it a lot. Almost everyone does it a little. A few teachers do it a little. No one does it.* Has integration been a topic of conversation and/or training among teachers at your school?

Students & Micro

1. What do you think are students' perceptions of Micro?

2. Are there groups or "kinds" of students who seem particularly responsive to Micro? Are there students for whom MICRO is not a good fit?

3. Do you see students making connections between Micro and what they do in their regular class work? Would you give me some examples? How do teachers help students make connections between classroom curriculum and Micro?

4. What changes have you seen in your students/teachers as a result of Micro?

5. Do you think teacher expectations of students have changed since introducing Micro? If so, how? To what degree is your Micro program student run versus teacher run? i.e. What authority have you given/withheld from students?

MICROSOCIETY Evaluation
Student Focus Group Interview Protocol
Spring, 2001

1. Let's start by each of you telling me your name, your current job in MICROSOCIETY and one thing you like about your job and one thing you don't like.

2. What is something that you feel good or proud about in your MICRO job? Did anyone else notice this and tell you that you had done well?

3. Has there been a time when you and your co-workers had a disagreement about something? Were you able to work it out? How?

4. What do you get out of Micro?

5. Let's make a list of all the times you've had to use writing in your job.

6. Let's make a list of all the time you've had to use math in your job.

7. Do you ever talk about MICRO in your classes? Tell me about a time that you've talked about something you're doing or learning in MICRO. For example, do your teachers sometimes use things that happen in Micro as examples?

8. Why do you think they started Micro at this school? *For the next question, give students a couple of minutes to write down notes on their answers before you discuss. They should have 2 columns: Things that help me now. Things that will help me in the future.* What do you think are some of the good things you're getting out of MICRO that will either help you now and will help you in the future?

9. Do you think you are given more responsibility as a result of Micro?

10. Before Micro, what did you want to be when you grew up? Has that changed?

M**i**cr**o**
SOCIETY

Student Survey

**This is a survey to find out how you feel about school and MicroSociety.
It is not a test—there are no wrong or right answers.**

First, here are some questions about you.

1. What grade are you in? _____   2. I am (Mark one): Female_____ Male _____

3. What is your date of birth?   **Month   Day   Year**
   Write in here➔➔➔ [| | **19**___]

4. Which best describe you? (*Check all that apply*):
   - a. _____ Native American or Alaskan Native   d. _____ White
   - b. _____ Black/African-American   e. _____ Hispanic/Latino
   - c. _____ Asian or Pacific Islander   f. _____ Other _____

5. What Language do the people in your home usually speak? (*Mark one*):
   - a. _____ English   d. _____ Chinese   g. _____ Vietnamese
   - b. _____ Korean   e. _____ Creole   h. _____ Ukrainian
   - c. _____ Spanish   f. _____ Russian   i. _____ Other _____

6. Do you get: (*Mark one*):
   - a. _____ Free lunch   c. _____ I don't know
   - b. _____ Reduced price lunch

7. I have been in this school for (*Mark One*):
   - a. _____ Since the beginning of   d. _____ I have been here for longer than
     this year   three years
   - b. _____ This is my second year   e. _____ I came to this school after the
                                                   beginning of this year
   - c. _____ This is my third year

8. I have been in MicroSociety for (*Mark One*):
   - a. _____ Less than one year   d. _____ 3 years
   - b. _____ 1 year   e. _____ More than 3 years
   - c. _____ 2 years   f. _____ I have not participated in Micro

9. What agency or business do you work in? _____

10. List your current job(s): _____

11. Here are statements about how you *feel* about yourself. For each statement, check if you think it's Mostly True or Mostly False. Remember, there are no wrong or right answers.

(A.) Put a " ✓ " next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	I feel good about myself.	___ T	___ F
b.	I think good luck is more important than hard work.	___ T	___ F
c.	Every time I try to get ahead in achieving my goals, something or somebody stops me.	___ T	___ F
d.	My plans hardly ever work out.	___ T	___ F
e.	I often worry about my personal safety while at school.	___ T	___ F
f.	I would come to school even if I didn't have to.	___ T	___ F
g.	I have a responsibility to help my school be a good place.	___ T	___ F

(B.) Thinking about how you feel in <u>your classes</u>... Put a " ✓ " next to either T or F:

h.	I am successful in my classes because I am smart.	___ T	___ F
i.	I am successful in school because I work very hard to do my best.	___ T	___ F
j.	When I need help in class, I don't mind asking for it.	___ T	___ F
k.	I feel that what I learn in school will be useful to me when I'm an adult and have a job.	___ T	___ F
l.	I'm good at speaking up and saying what I think in class.	___ T	___ F
m.	I make suggestions that will help make things better in class.	___ T	___ F

(C.) Thinking about how you feel in <u>MicroSociety</u>... Put a " ✓ " next to either T or F:

n.	I am successful in MicroSociety because I am smart.	___ T	___ F
o.	I am successful in Micro because I work very hard to do my best.	___ T	___ F
p.	When I need help in Micro, I don't mind asking for it.	___ T	___ F
q.	I feel that what I learn in Micro will be useful to me when I'm an adult and have a job.	___ T	___ F
r.	I'm good at speaking up and saying what I think in Micro.	___ T	___ F
s.	I make suggestions that will help make things better in Micro.	___ T	___ F
t.	In Micro, I really show my teachers and friends what I can do.	___ T	___ F
u.	In Micro, my teachers and friends really see what I can do.	___ T	___ F

12. Here are statements about you.

Put a " ✓ " next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	I always do my homework.	___ T	___ F
b.	I sometimes come late to classes.	___ T	___ F
c.	Not too long ago, I had to go to detention.	___ T	___ F
d.	I am often absent at school.	___ T	___ F
e.	I sometimes get into trouble at school.	___ T	___ F
f.	My parents always look at my report card.	___ T	___ F

13. **And now for some statements about your school.**

   Put a "✓" next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	My teachers expect a lot from me.	___ T	___ F
b.	My teachers listen to what I have to say.	___ T	___ F
c.	Teachers encourage me to redo work until it is as good as it can be.	___ T	___ F
d.	I have opportunities to explore my own interests, talents and ideas in school.	___ T	___ F
e.	Students treat each other with respect.	___ T	___ F
f.	Students in this school are willing to go out of their way to help someone.	___ T	___ F
g.	My school is like a family.	___ T	___ F
h.	I have learned to respect people of different backgrounds in this school.	___ T	___ F
i.	In class, students often work together in groups.	___ T	___ F

14. **Here are some statements about MicroSociety.**

   Put a "✓" next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	I work hard at my job in Micro.	___ T	___ F
b.	I look forward to Micro.	___ T	___ F
c.	It is important to me that I do my best on my job in Micro.	___ T	___ F
d.	In Micro, I gain the skills I will need to get a job when I'm an adult.	___ T	___ F
e.	I find my Micro job boring.	___ T	___ F
f.	Micro has encouraged me to read more.	___ T	___ F
g.	Micro is one of the best things we do in this school.	___ T	___ F
h.	My parents think Micro is neat.	___ T	___ F
i.	In my classes, teachers talk about Micro.	___ T	___ F
j.	My teachers like Micro.	___ T	___ F
k.	The way students get picked for jobs in Micro is fair.	___ T	___ F
l.	In Micro, I learn how to plan projects.	___ T	___ F
m.	In Micro, I learn how to organize my time.	___ T	___ F
n.	In Micro, I learn how to solve problems.	___ T	___ F
o.	In Micro, I learn what I need to do in order to be a good citizen.	___ T	___ F
p.	In Micro, I learn new ways of getting information I need.	___ T	___ F
q.	In Micro, I get to see my writing published.	___ T	___ F

15. Here are some statements about working your MicroSociety job.

Put a "✔" next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	When we work, some students try to take over.	___ T	___ F
b.	I feel bad if I don't do my job well.	___ T	___ F
c.	If I do not get my work done or try my best, my co-workers let me know.	___ T	___ F
d.	It's important to do my job right.	___ T	___ F
e.	I work well with other students in my job.	___ T	___ F
f.	Working with others slows me down.	___ T	___ F
g.	I use a computer on my Micro job.	___ T	___ F
h.	The pay I receive for my job is fair.	___ T	___ F
i.	The most popular job in Micro is _____		
j.	If I could pick any job in Micro, I would pick _____		

16. Here are some more specific statements about working in your MicroSociety job.

Put a "✔" next to either T or F:

		MOSTLY TRUE	MOSTLY FALSE
a.	On my job, I use writing.	___ T	___ F
b.	On my job, writing is important.	___ T	___ F
c.	To do my job well you have to write well.	___ T	___ F
d.	On my job, I need to know how to write clearly because other kids will read it.	___ T	___ F
e.	On my job, I use reading.	___ T	___ F
f.	On my job, reading is important.	___ T	___ F
g.	To do my job well you have to read well.	___ T	___ F
h.	Micro has encouraged me to read more.	___ T	___ F
i.	On my job, I use math.	___ T	___ F
j.	On my job, it is important to do math accurately.	___ T	___ F
k.	To do my job well you have to do math well.	___ T	___ F
l.	On my job, I use money.	___ T	___ F
m.	On my job, I use books and/or reading materials.	___ T	___ F
n.	On my job, I use an inventory sheet.	___ T	___ F
o.	On my job, I use email.	___ T	___ F
p.	On my job, I use the Internet.	___ T	___ F
q.	On my job, I use a word processor computer program.	___ T	___ F
r.	On my job, I use a spreadsheet or database computer program.	___ T	___ F
s.	On my job, I use a drawing or graphics computer program.	___ T	___ F
t.	On my job, I use a calculator.	___ T	___ F
u.	On my job, I use pencil and paper.	___ T	___ F

17. What did your last report card look like?
(Use this chart; Fill in the blank box under "Grade"):

Subject	Grade (letter or number)	Subject	Grade (letter or number)
Language Arts		Science	
Math		Social Studies	

Here are some questions about things you may have learned about. Do you know the answers to the following questions?

18. What is profit? (Check one)
- ☐ a. Cost of buying things.
- ☐ b. Interest on loans.
- ☐ c. Extra money after you pay expenses.
- ☐ d. Don't know.

19. What is income? (Check one)
- ☐ a. Money you put in the bank.
- ☐ b. Money you are paid.
- ☐ c. Money you pay in taxes.
- ☐ d. Don't know

20. What is a budget? (Check one)
- ☐ a. A plan of how you will use money you earn.
- ☐ b. A plan of how you will make money
- ☐ c. A plan of how you will borrow money
- ☐ d. Don't know.

21. What is a resume? (Check one)
- ☐ a. An application for a job.
- ☐ b. An outline of your qualifications for a job
- ☐ c. A letter about why you are interested in a job.
- ☐ d. Don't know.

22. What are the three branches of government? (Check one)
- ☐ a. Police, judges, president
- ☐ b. Government, parliament, chairman
- ☐ c. Executive, judicial, legislative
- ☐ d. President, judicial, congress

SITE COORDINATOR INTERVIEW PROTOCOL

Implementation of Micro

1. How often does the Implementation Team meet? *(Circle One)*

Weekly   **Every two weeks**   **Monthly**   **Every two months**   **Once every semester**   **Once a year**

2. Who is on the team?

3. What are the Team's responsibilities?

4. Is the Team effective in terms of working well together & in promoting the virtues and value of Micro school-wide? *(Circle One)*

Very Effective   **Effective**   **Ineffective**   **Very Ineffective**

5. What percentage of your school's Teachers fit into the following categories regarding Micro: *(Write % in next to each)*

Very Enthusiastic _____   **Enthusiastic**_____   **Unenthusiastic**_____   **Very Unenthusiastic**_____

6. How would you describe your Principal's attitude toward Micro? *(Circle One)*

Very Enthusiastic   **Enthusiastic**   **Unenthusiastic**   **Very Unenthusiastic**

7. How many students does Micro serve at your school? What grades?

8. If someone were to spend a day at your school, to what degree would they see evidence or signs of Micro? *(Circle One)*

Very Visible   **Visible**   **Little visible evidence**   **No or almost no visible evidence**

9. Describe the "components" of Micro at your school:
   a.   Markets — what's bought and sold?, who manages the businesses?

   b.   Strands — does Your School have strands and/or substrands?, If so, which ones?

   c.   Government — to what degree to students make and enforce policy?

10. Does your school have any structures in place to assess the quality of students' contributions – i.e. the products they make and sell or their work in the courts, for example? *(Describe below)*

11. Do you have a student peer-review component, where students offer each other feedback on their on-the-job performance? *(Describe below)*

12. How much time does your school designate for Micro activities? How often? *(Describe below)*

13. How much time do you estimate you devote to Micro each week? *(Circle One)*

0 to 1 Hours   **1 to 2 Hours**   2 to 4 hours   4 or more *(Write amount)*_____

14. How many times has your school's Micro trainer visited?_____

15. How many times has the National Micro team visited your school? _____

16. How many teachers at your school attended the Micro National Conference? _____

Integration of Micro

17. What has your school defined as its Program Focus/statement of focus for Micro? *Briefly Describe.*

18. Are there other school-wide reform – professional development, curricular, mentoring, tutoring – programs in place at your school? If so, how well do they work along/in concert with Micro? *(Describe below)*

19. What percentage of teachers have you observed integrating Micro concepts into their classroom?

0-15%	16-40%	41-60%	61-85%	86-100%

20. How do teachers – across subject areas – integrate Micro processes and concepts into their classroom?
    a. Do teachers receive professional development how to integrate Micro? *(Describe below)*

    b. To what degree, if at all, is integration standardized within subject areas, i.e all math teachers teach concepts relevant for the marketplace? *(Describe below)*

20. (continued)
       c. How do teachers help students make connections between curriculum and Micro? *(Describe below)*

       d. Do students see connections between Micro and their class work? *(Describe below)*

Students & Micro

21. What percentage of your school's Students fit into the following categories regarding Micro: *(Write % in next to each)*

Very Enthusiastic _____   **Enthusiastic**_____   Unenthusiastic_____   Very Unenthusiastic_____

22. Are there particular groups or "kinds" of students who seem particularly responsive to Micro? *Briefly Describe.*

23. Are there students left out or who dislike Micro? *Briefly Describe.*

24. How much does your school focus on the following areas in Micro?

Put a "✓" in the appropriate box.	A whole lot	Some	Not very much	Little or none
a. Math Skills				
b. Reading Skills				
c. Writing Skills				

25. How effective is Micro in developing Student's...?

Put a "✓" in the appropriate box.	Very Effective	Somewhat Effective	Not very Effective	Ineffective
a. Math Skills				
b. Reading Skills				
c. Writing Skills				

About the Authors

Research for Action

Matthew Pearson, M.Ed., is interested in research that focuses on education programming and policy. Before joining RFA, Pearson worked at the Center for Health, Achievement, Neighborhood, Growth and Ethnic Studies (Changes), an affiliate of the University of Pennsylvania, as a Project Evaluator/Health Educator. In this position, he assumed a dual role teaching high school students participating in a health education after-school program and assisting in evaluating the effects of the program on students' lives. Pearson has both academic and professional training as preparation for research that employs both qualitative and quantitative methods. He has an undergraduate degree in Sociology and has completed his graduate studies in English Education at the University of North Carolina at Greensboro. mpearson@researchforaction.org

Elizabeth Blair, has carried out research on gender and sexuality issues in education and education policy. Before working with RFA, Liz developed a curriculum and taught sexuality and violence prevention to middle and high school students. Her curriculum was recognized by the Minnesota Department of Children, Families and Learning as "best practices" in sexuality education. Liz has an undergraduate degree in Psychology and Education, with a concentration in Women's Studies, from Swarthmore College. She recently coauthored an article in *Cognition* on early child development, based on research she completed while at Swarthmore.

Jolley Bruce Christman, Ph.D., has authored numerous evaluation reports and journal articles including *The Five School Study: Restructuring Philadelphia's Comprehensive High Schools* and *Taking Stock/Making Change: Stories of Collaboration in Local School Reform* (with Fred Erickson). Her research interests include school reform, gender and education, and participatory evaluation. She received the Council on Anthropology and Education's (CAE) award for Excellence in Ethnographic Evaluation and currently serves on CAE's Board. Jolley teaches Qualitative Methods of Program Evaluation at the University of Pennsylvania. jchristman@researchforaction.org

Paige Menton, has taught at the elementary level in Pennsylvania public schools. She is particularly interested in children's writing, and has worked with the Pennsylvania Writing and Literature Project at West Chester University. Her current work at RFA includes a project dealing with early literacy learning and an evaluation of a national school reform model.

Kutzik Associates

David Kutzik ,Ph.D, is founder and principal of Kutzik Associates. He specializes in the design and implementation of quantitative evaluation of replicable program models in education and health provider case management. The author of numerous articles and book chapters, he is also Associate Professor of Sociology at Drexel University where he co-directs a research institute on cognition and aging and is internationally recognized expert on the development of computer-based technologies to aide the cognitively impaired. DKutzik@aol.com

Miguel Antunes, B.S., is research associate with Kutzik Associates and has worked on numerous evaluative research projects relating to professional development of teachers, web-based virtual communities for students, and curriculum reform models.