

**Evaluation Report of the  
Investigators of Practice Program**

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August 2014

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## Executive Summary

The findings in this report come from two data sources: a survey given to 50 educators who participated in the IOP Program and an analysis of the research questions they designed and used. The response rate of 96% on the survey reveals that educators deemed IOP participation as quite valuable. In fact, 97.9 percent of the teachers who took the survey strongly agreed or agreed that participation in the program was worth the time and effort required. Other findings from the survey expand upon this theme that the IOP program is a valuable professional opportunity.

Educators who participated in the *Investigators of Practice Program* believe that the program positively impacted their knowledge, practices and beliefs. Teachers report improving use of learner-centered practices, being more reflective, raising more questions, and using their own data and professional research to inform their practice. However, the strongest theme stemming from the data is that after the formal IOP participation, educators remain in the stance of “investigator” and describe behavior that reveals them as researchers. The topic of study is clearly less important than the action research processes embedded in the experience. Educators report 1) having a deep understanding of the action research process 2) using data to better understand their teaching and student learning, 3) questioning their practice and/or student learning 4) using outside research and best practices to inform their work and 5) reaching out to colleagues to seek other perspectives and ideas.

Participants in the IOP program also believe that their learning positively impacted student learning in that they were better able to meet the needs of their students. When asked about student learning, however, more teachers speak about their own learning and practice by describing their ability to observe students, use data, reflect on their practice, and employ learner-centered approaches, such as differentiation of instruction/interventions, individual feedback and self-regulation strategies. This emphasis on teacher learning, over student learning, is partly due to the nature of the inquiry and the questions that drove the work. Two-thirds of teacher questions were exploratory in nature, indicating that teachers were learning about and examining the research related to their topic. Only one third of the questions were action oriented, indicating that teachers were implementing and studying new practices.

This study also reveals, quite clearly, that a collaborative and professional culture is at work in Byram Hills. The conditions for professional learning inside of the IOP program are so important to educators that even when asked about impact on practice, teachers speak about collaboration, safety, and choice as essential to professional learning and to their success. They also point to administrative support in the form of encouragement, respect, flexibility and allocation of resources as essential.

While these findings are quite persuasive in terms of the value of the program, an important next step is to examine the research write-ups that teachers produced to confirm the perceptual data for the survey. Based on these findings, the strongest recommendation for the next year is to make explicit and work to strengthen connections to student learning.

## **I. Context and Purposes of the Study**

In 2009, the Byram Hills School District launched its first year of action research. Tim Kaltenecker offered this job-embedded and teacher-centered professional development option to teachers in the district as a professional growth option in the District's teacher evaluation system. He enlisted Diane Cunningham, a consultant from Learner-Centered Initiatives, to design the program and guide the first cohort of teacher-researchers during that school year.

After the first year, the program was re-named, *Investigators of Practice*, and re-shaped to build capacity. Diane co-facilitated a second cohort of researchers with four participants from year one. During the third year of the program, Barbara O'Connell took the lead facilitation role and was supported by Tim and Diane as needed.

In the Fall of 2013, Tim Kaltenecker expressed an interest in evaluating the program. The purposes of the study are to 1) examine the impact that the "Investigators of Practice" program has on teacher classroom practice, professional practice, and student learning; 2) identify the conditions that support the action research process and professional practice; and 3) inform district decision making regarding the program.

## II. Research Questions

Primary and secondary research questions have been organized into four categories as follows:

### 1. Teacher Change/Growth

- What is the nature of change that teachers in the IOP program experience?
  - How has the IOP program impacted teacher knowledge, practice, and attitudes/beliefs about classroom practices?
  - How has the IOP program impacted knowledge, skills and attitudes/beliefs about professional learning practices (or professional development)?

### 2. Long-Term Impact

- After the formal experience in IOP, to what extent do teachers continue to use 1) new learning related to the focus of their study and 2) action research skills, strategies and processes?

### 3. Student Learning

- How has teacher learning from the IOP program impacted student learning?
- How has teacher learning from the IOP Program impacted teachers' ability to address student needs?

### 4. Conditions

- What conditions do teachers cite as supportive of the action research process?
- What conditions do teachers cite as supportive of professional learning in general?

### **III. Methodology**

The study is primarily a qualitative study, as most of the data is verbal. Data sources included:

1. an electronic survey containing 20 questions (14 closed questions using a likert scale and 6 open questions)
2. written summaries of action research studies (prepared by teacher-researchers as the end of each year of the program)

The survey was analyzed first. Closed questions were tallied by percentage and a coding and reduction procedure was used to analyze each open-ended survey question. During analysis of the six open-ended questions themes and patterns were identified. These were then sorted based on the focus of the research questions.

The written reports were analyzed to confirm survey findings and to explore questions that the survey raised.

### **IV. Credibility and Meta-Evaluation**

LCI consultant, Diane Cunningham, designed the study and served as the principal investigator, collecting and analyzing data. Diane has a strong background in action research and qualitative methods. She has taught qualitative action research courses at Adelphi University and has a research concentration in her doctoral studies. She shaped the IOP program at Byram Hills, facilitated two cohorts through the process and coached the current facilitators before stepping out of the project. As a result, she brings a clear understanding of the context of this study, but also a bias that must be recognized.

Dr. Giselle Martin-Kniep and Dr. Tim Kaltenecker both served as secondary investigators by providing feedback on the design of the study and on the initial data analysis. Giselle and Tim both have extensive experience in professional development, evaluation and data analysis.

## V. Data Summary and Analysis

### A. Survey Data Analysis

#### Response Rate:

The survey was sent via e-mail to the 50 educators who participated in the program over 4 years. Of those 50, 48 participants completed all or part of the survey. While 48 respondents completed all closed questions, 35 respondents completed both the closed and the open-ended questions.

*The response rate alone is very telling. Nearly every educator who participated in the program took the time to complete all or part of the survey. We may conclude that educators deemed this study as important and worth their time based on response rate alone. One closed question in the survey supports this conclusion: 97.9 percent of the teachers who took the survey strongly agreed or agreed that participation in the program was worth the time and effort it required.*

#### Demographics of Respondents:

A breakdown of respondents by year of participation in the program follows. Note that some educators participated for more than one year.

2009-2010	22.9%	(11)
2010-2011	31.3%	(15)
2011-2012	27.1%	(13)
2012-2013	58.3%	(28)

Of the 48 survey respondents,

- 54% work at the elementary level, 20.8% work at the middle level and 29.2% work at the secondary level
- 43.8% have been working at Byram Hills for more than 16 years,
- 31.3% have been in district between 11 and 15 years,
- 22.9% for 7-10 years and 2.1% for 4-6 years.

*The larger percentage of elementary teachers partly reflects a greater number of grade levels, but also may reflect the fact that during year 1 of the program, Tim Kaltenecker (Asst. Superintendent) collaborated with Carol Fischer (elementary principal) to study the process. Carol encouraged her faculty to participate that year and word of mouth led other elementary teachers to participate in year 2. The high school involvement is most likely influenced by the fact that Barbara O'Connell (HS math teacher) facilitated the program during the 3<sup>rd</sup> and 4<sup>th</sup> years. The program may currently be slightly more "visible" at the elementary and HS levels, but it is clear that those in leadership roles influence enrollment in the program. This reflects the leadership philosophy at Byram Hills.*

## Impact on Participant Knowledge, Practice and Beliefs

**Finding #1: Survey data reveals, very strongly, that educators who participated in the *Investigators of Practice Program* believe that the program positively impacted their knowledge, practices and beliefs.**

Support for this statement appears in responses to both closed survey questions and open-ended survey questions. Of the 48 participants who responded to the closed questions about knowledge and practice,

- 100% strongly agreed or agreed that participation in the Investigators of Practice (IOP) Program deepened their knowledge base about the topic studied
- 97.9% strongly agreed or agreed that participation in IOP program, allowed them to change instructional practices to address specific student needs. Only 2.1% (1 respondent) respondent disagreed.
- 100% of all respondents strongly agreed or agreed that participation in the IOP program contributed to their professional growth.

Responses to open-ended questions revealed the following findings related to impact.

**Finding 1a: Teachers improved their use of learner-centered practices.**

Approximately one third of respondents described the use of learner-centered practices when asked about impact. More specifically, these practices included providing feedback to students, tailoring/scaffolding instruction, formative assessment, self-assessment, using feedback from students to inform teaching, and collaboration techniques.

Illustrative and representative responses include:

*“IOP allowed me to look at ways to teach all learners and to pinpoint their strengths and weaknesses. I was able to do this by creating 2 mathematical screening tools, one for average or below average performing students and the other for advanced learners. Also, I was able to break down the CCLS and create lessons that scaffold the rigorous curriculum.”*

*“The two most significant outcomes are that I regularly use student feedback to direct my next lessons/examples and that I now reach out to colleagues in other buildings/disciplines for instructional feedback.”*

*“It has enabled me to utilize questioning and collaboration techniques more effectively and assess their impacts on student learning.”*

*“IOP caused me to rethink grading practices and provide students with the opportunity to self-assess.”*

Finding 1b: As a result of participation, participants are more reflective- they are raising more questions, and using their own data and professional research to inform their practice.

*“I have become more accepting of going back to the drawing board. Admitting that something isn't working is something I believe many of us struggle with as professionals. However, I find it more rewarding to say I have found 5 things that didn't work that I will pocket for another purpose, rather than beating the same square in a round hole!”*

*“... IOP is the best way for educators to allow their own reflections about research, teaching and metacognition join. I have found that since I participated in IOP I am more interested in educational research and have used it to make decisions in classroom. For instance, this year I researched how to help students develop and build upon models in science.”*

*“I'm more reflective as a teacher. True, good teachers do this, however, I think the acts of logging and analyzing data in a formal way make the experience richer.”*

*“The IOP program provided me with a framework that I use daily in my professional practice to move slowly, question thoughtfully, and think deeply about concerns to better understand to improve my skill set.”*

Finding 1c: Educators who participated have a deep understanding of the action research process.

When asked, “What did you learn about the action research process as a professional development opportunity?” participants wrote about five core aspects of action research:

- the collaborative nature of the process;
- the rigor and thinking demand that the process requires;
- the ownership that comes from engaging in research that is meaningful and researcher-driven
- the need for a safe environment that allows risk taking; and
- the systematic use of data as part of the process.

Illustrative and representative responses include:

*“I learned action research is an ongoing continuous process that that needs constant reflection to be able to take something to a higher level. I also learned that struggling with an idea, and feeling uncomfortable is a good thing for teachers as well as students.”*

*“The action research process values data often thought of as anecdotal and shows how to examine it with scientific rigor. Also, it is an opportunity to look closely at something of immediate importance of the researcher but in a community setting with the concomitant guidance and support.”*

*“I learned more doing IOP than in all the other learning communities combined over the years because I alone was responsible for the idea, research and implementation. The process was rigorous but not unkind and failure was not a negative but a signal to take a different path.”*

*“I was happy to be part of a IOP because I truly found it to be a journey through the whole group's research and practices.”*

*“I felt this was an excellent PD opportunity- one that was personal and meaningful to my teaching. Being given the time and guidance to look at your own needs makes for a very rich experience, because it is highly relevant. The collaborative piece to this experience cannot be overstated, and working and sharing ideas with colleagues from the entire district was truly motivating.”*

*This data reflects the Byram Hills culture and values. Specifically, the District promotes a “continuous improvement cycle” that includes: study-plan-implement-evaluate-revise-refine. This cycle has been promoted and practiced throughout the District. Furthermore, the District promotes high rigor with high levels of support throughout professional work. Finally, the District values collaboration. In all aspects of the District’s policies and structures, collaboration among teachers, administrators, students and parents takes priority.*

## Long-Term Impact

### **Finding #2: Participants in the IOP program continue to use knowledge, skills and processes after formal participation is over.**

Of the 48 participants who responded to the closed questions about long-term impact,

- 97.9% strongly agreed or agreed that participation in the IOP program made a lasting impact on their teaching/professional practice.
- When asked, *To what extent are you still using your learning about your topic in your practice?*, 90.2 % responded to a high or moderate degree (51.2 % (21) responded to a moderate degree, 39.0% (16) responded to a high degree) and 9.8% (4) responded to a small degree. 0% responded not at all.
- When asked, *To what extent are you still using action research skills, strategies or processes in your professional practice?*, 83% responded to a high or moderate degree (41.5 % (17) responded to a high degree, 41.5% (17) responded to a moderate degree) and 17.1% (7)% responded to a small degree. 0% responded not at all.

Responses to the open-ended question, “What specific skills, strategies or processes do you continue to use, even after your formal participation in the program?” revealed four more themes related to the different ways in which teachers continue to use learning.

Finding #2a: Nearly one half of the participants continue to operate as researchers of their own practice, using data to better understand their teaching and student learning and questioning their practice and/or student learning.

*“I am a "teacher as learner" vs. "teacher as teacher." I can't help but think of myself as a student alongside my students. I also find myself "coding" data constantly, whereas I never did so in the past.”*

*“Surveys - continue to gather feedback from students using survey examples taught in IOP*

*“I have developed a deep appreciation for the value of data. I use data, and develop data collection instruments, in my work with Flexible Support Students. I also use it on an individual basis with students when we collaborate to develop goals and strategies to improve academic engagement.”*

*“I still collect feedback on a regular basis (and code). I keep a journal to document what my students are saying/doing.”*

*“I now find myself asking more questions after a lesson, reflecting on certain*

*aspects that I feel I'd like to improve upon."*

*"Questioning myself, and listening carefully to others to ask questions that enable them to think and act on their own two feet."*

Finding 2b: 25% of the respondents state that they continue to use learning related to their topic of study. In most cases, these are learner-centered practices.

*"Walking my students through the process of explaining their thinking in words."*

*"Reading in the content area, crafting a good question, selecting the appropriate textbook...."*

*"Providing my students with concrete exemplars and modeling for them."*

*"Individualized meetings with students to offer better feedback."*

Finding 2c: Participants stated that they continue to use outside research and best practices to inform their work.

*"I continue to try what I learned and read up on the topic of attention and its impact on reading comprehension."*

*"I continuously research many aspects of teaching and learning theory."*

*"I have been reminded of the value of research based readings and how they can be helpful towards progress."*

Finding 2d: Participants report that they reach out to colleagues and seek other perspectives and ideas from colleagues.

*"I am more inclined to go to colleagues for feedback and to talk through problems I may have with specific students."*

*"I also continue to meet with colleagues to share work I have created and "bounce ideas off" of others. I found in IOP that talking about my practice with educators is a beneficial way to think through my understanding. In addition, my colleagues in and outside of IOP have excellent suggestions for improvement. Recently, I shared a way that I planned to encourage close reading of an article on wind. My colleague suggested a question that could help students focus on a detail I had not mentioned. The collaborative nature of IOP is an asset to teachers involved."*

*"I have extended my outreach to other buildings and discipline and still talk regularly to others I have worked with for professional insights."*

The over-arching theme, it seems, is that after the formal IOP participation, educators remain in the stance of “investigator” and describe behavior that reveals them as researchers. The topic of study appears less important than the processes embedded in the IOP program (action research process.)

## Impact on Student Learning

**Finding 3: Survey data reveals that participants in the IOP program believe that their learning positively impacted student learning. It also reveals that educators see their own learning as helping them to better meet the needs of their students.**

→ Of the 48 participants who responded to the closed questions about student learning,

- 100% strongly agreed or agreed (62.5% (30) respondents strongly agreed and 37.5% agreed) that participation in the IOP program positively impacted student learning.
- 95.9% strongly agreed or agreed (52.1% (25) strongly agree and 43.8% (21) agree) that participation in IOP program, allowed them to change instructional practices to address specific student needs. Only 2.1% (1) respondent disagreed.

→ When asked to give specific examples of how participation in the program impacted student learning, the findings speak to both teacher and student learning. Interestingly, only one third of the respondents specifically described student learning, while the other two-thirds described changes in their own practices that allowed them to better meet student needs or stay “close” to students.

Finding #3a: When asked about student learning, more teachers speak about their own learning and practice.

Finding #3b: Teachers speak to their ability to observe students, use data and reflect on their practice as allowing them to use more learner-centered approaches, such as differentiation of instruction/interventions, individual feedback and self-regulation strategies.

Illustrative and representative responses include:

*“I learned a lot about designing student rubrics and about ways to encourage students to self-assess in the areas of speaking and listening.”*

*“My participation in the IOP Program has given me confidence to examine many aspects of students and their learning. Although I have many students it is really important to know the history of a student, their learning styles, but most importantly what their interests are (in and outside of school) so that I can help*

*them make connections to school and to increase their engagement in school.”*

*“I am a better observer of student behavior. I am better at assessing student comments and collecting data. This allows me to refine my lessons continuously and alter my approach for each group of students.”*

*“By using the screening tools, I have data to pinpoint students SPECIFIC areas of strength and weakness. This helps me tailor instruction to meet their individual needs.”*

Finding #3c: Teachers who speak specifically about student learning describe improvements in student skills and performances.

*“I started thinking about making an impact on an entire class and wound up narrowing my research so that it was geared to a specific student. The impact on this student was dramatic in terms of overall grades. My case study (student) went up 2 grades by the end of the year.”*

*“One-on-one feedback sessions has significantly improved student's pronunciation of target language.”*

*“Last year we discovered that we had to model more concrete examples when asking students to write about their work. So in modifying the way we delivered information to our students we were able to extract higher quality writing/thinking from them when they considered their work.”*

*“Students have gained the ability to ask questions that are on topic and use that skill to drive small and whole group conversation.”*

Finding 3d: Teachers who speak specifically about student learning describe students as taking more ownership over their learning, through self-regulation strategies and self-assessment.

*“I have seen a change in my students' metacognition - they are better able to monitor their own learning due to the type of feedback they are receiving.”*

*“I feel the students are more highly engaged when doing certain tasks. I have given them more opportunities to make choices on how to collaborate with one another, so although I am providing an overall structure for the task, the students can decide how best to follow through to completion. I believe they feel they have more ownership over what they are doing.”*



questions.

Finding #4a: The ability to share and learn with colleagues, collaborate and get feedback on their own work and thinking is invaluable to the IOP process (50% of respondents).

Finding#4b: The time to collaborate and do research is viewed as supportive (40%).

Finding#4c: Administrative support in the form of encouragement, respect and flexibility is viewed as supportive (30%).

Illustrative and representative responses include:

*“I felt that I gained the most from listening to and interacting with teachers from other building levels, and comparing our practices (at the early elementary level) with the those of teachers in the middle and secondary grades.”*

*“My department chair shares the same philosophy as the IOP program. Try something, tweak it, observe the outcomes, adjust and adopt. I appreciate that the message of IOP is supported in my department.”*

*“Teaming in the middle school and the time we have to meet with colleagues in our subject area has allowed me in the past (and present) to work closely with others. This time has proven to be important for research and planning during my participation in IOP and still allows me time to work/ share with colleagues.”*

*“The way the program is structured - by providing the time to meet with our colleagues- is a critical component to the success of the program. The materials provided to guide us through the action research process are also excellent, and give structure to what you are attempting to do. The guidance of Tim and Barbara, and the support of colleagues, are invaluable assets to IOP.”*

➔ The last open-ended survey question asked, “What conditions (in your school or in the district) support your professional growth in general? Please be specific.” The responses reveal that faculty see school/district support for professional growth in two ways: they speak to 1) a supportive culture and 2) identify tangible resources that the District provides.

Finding #4d: IOP participants see the Byram Hills culture as supportive.

75% of Respondents spoke to cultural aspects and used the following words and phrases to describe a culture that supports their learning and growth: collaborative, supportive, choice, flexibility, encouraging, environment that values learning, invested in excellence, continuous improvement, professionalism, team leadership, attitude of “students first”, best practices, values teachers, life-long learners, shared passion, trust.

Finding #4e: District allocation of resources to professional growth opportunities are recognized and valued by teachers.

Tangible resources, such as time, in-district workshops, consultants, outside conferences, classes, reading materials were mentioned by 50% of the respondents.

Illustrative and representative responses include:

*“Extensive resources and an environment that values learning at all times.”*

*“Quite simply, my district is invested in excellence and run by a supportive administration and BOE.”*

*“Workshops at BOCES, consultants with vast experience coming in to lead workshops at school during the school year and during summer, cyber camps*

*“Culture of appreciation for continuous improvement and learning.”*

*“A feeling of professional trust is vital. Knowing that my administrators trust that I am working independently and making progress without "checking in" or second guessing my work ethic...”*

*“There is an emphasis on collaboration and continuous improvement that permeates all levels of the organization.”*

## B. Analysis of Teacher Questions

The inquiry questions formulated by teachers during the first three years of the program were analyzed by type.

### **Finding 5: Two-thirds of the questions that drove the inquiry teachers engaged in were exploratory in nature.**

- 24/36 (66%) questions were exploratory in nature, indicating that teachers were learning about and examining the research related to their topic.
- 12/36 (33%) questions were action oriented, indicating that teachers were implementing and study new practices. Of these 12 action oriented questions, 10 embedded impact on student learning in the question.

### **Typing of IOP Questions From 3 Years**

Green = 2013

Orange = 2012

Blue = 2011

<b>Exploratory</b>
1. What are the ways in which a teacher can provide productive feedback to students in a large class setting? How will students interpret this feedback to improve upon their skills? (2013)
2. What qualifies a person as an introvert or extrovert? (2013)
3. What are the characteristics of successful feedback methods that help motivate and enable students to grow and improve as visual artists? (2013)
4. What is quality feedback? (2013)
5. What will we learn from an exploration of quality feedback? Can quality student feedback be used to improve student engagement, participation and learning in a kindergarten classroom? (2013)
6. What gender-based research strategies can be applied in our classrooms to recognize individual student needs? What are effective strategies to support a successful gender-based learning environment? What are some observable behaviors exhibited by boys and girls when working in a variety of classroom settings? (2013)
7. What math assessment tools can be used to collect valid and reliable data for kindergarten students? How can these assessment tools be used to guide instruction and show student growth? (2013)

8. What do the CCSS for literacy in the content area of social studies demand? Which textbooks for sale in 2012 support the CCSS? How does teaching reading in the content areas improve student learning? (2012)
9. How can assessments inform my daily teaching? (2012)
10. What is the most effective way to employ active listening strategies in the classroom? (2012)
11. How do third grade advanced learners internalize fractions and what struggles will they face? (2012)
12. How effective is the math program that I am currently using in building basic math skills for students with special needs? How can I improve the basic skills of my special needs students? (2012)
13. What is the role of curiosity in the classroom? (2012)
14. How can I revise my screening tool to prove that a student is advanced mathematically? How does the behavior of an advanced math student compare to that of a highly competent math student?
15. How can we use student interviews as a diagnostic and formative assessment tool inside the RTI process? (2011)
16. Can the TI-Nspire calculator be used in the geometry classroom as a tool for differentiation?  
What can we learn about students understanding of mathematics from the use of technology inspired lessons? (2011)
17. Who are the experts on using student interviews as diagnostic and formative assessment tools?  
How are interviews used to gather information?  
What information will be most valuable to target in an interview to find students strengths and weaknesses? (2011)
18. Can we create an interview/screening tool that can better pinpoint the learning needs of our students by asking children to compute, analyze, and talk about math? (2011)
19. What are the elements of good discussion questions?  
What are the elements of a good written question designed for independent thinking and answering?  
What happens when I model questions that elicit critical thinking?  
What kinds of questions am I currently asking?  
Can my students make sense of questions I am asking and can they

answer them critically and independently? If not, do they have the means of tackling a questions using risk taking, embracing challenge, and the willingness to think deeply about something? (2011)

20. What methods might I implement into the instruction of Spanish IV to better ensure that students utilize the target language and specialized vocabulary? (2011)
21. How do I effectively interview my students? (2011)
22. How are interviews used to gather information and what information would be most valuable to target when asking questions? (2011)
23. What methods of collaboration are most effective and engaging form students? (2011)
24. What is student engagement? (2011)

<b>Action oriented – impact of new practice on teacher practice</b>	<b>Action oriented – impact of new practice on student</b>
<ol style="list-style-type: none"> <li>1. <u>How will small group instruction or student work stations allow for conferencing time with students in order to improve language skills?</u> (2013)</li> <li>2. How can a tool designed to differentiate between introverts and extroverts inform my classroom practice? (2013)</li> <li>3. How will the use of student interviews as a diagnostic and formative assessment tool impact teacher selection of interventions? (2011 A)</li> </ol>	<ol style="list-style-type: none"> <li>4. <u>How will small group instruction or student work stations allow for conferencing time with students in order to improve language skills?</u> (2013)</li> <li>5. How do self-assessment and self grading practices affect student attitudes toward learning? (2013)</li> <li>6. How can I use quality feedback to improve the writing of my AP History students? (2013)</li> <li>7. How will we improve feedback on pronunciation through the use of workstations in the world language classroom? (2013)</li> <li>8. How will the use of student interviews as a diagnostic and formative assessment tool impact student performance? (2011 A)</li> <li>9. How will implementing the Problem Solving unit of Second Steps social</li> </ol>

	<p>skills curriculum assist children in brainstorming solutions to a social challenge?</p> <p>10. How will implementing the Problem Solving unit of Second Steps social skills curriculum improve students' ability to execute solutions to a social challenge? (2011)</p> <p>11. <i>Is LTI an effective professional development experience? (2011)</i></p>
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## VI. Conclusions and Recommendations

### Conclusions:

The *Investigators of Practice Program* positively impacts teacher knowledge, practices and beliefs. It not only supports the use of learner-centered practices, but it promotes reflective practice and moves educators into the role of researcher and continuous learner, changing their behavior and “stance” on professional learning even after formal participation. While teachers believe that the program positively impacts student learning, some adjustment can be made to emphasize student learning even further. Finally, the culture at Byram Hills is both supportive of and perfectly suited to professional work of this nature. The faculty recognize and appreciate this immensely.

### Next Steps/Questions:

1. Analyze teacher written reports (sample all three years) to explore the relationship between what teachers are learning, how practice is changing, and student learning.
2. Conduct a focus group to inform/confirm data analysis.
3. Adjust the upcoming IOP Program to strengthen connections to student learning.

Consider:

- sharing results of this study with IOP facilitators.
- expanding the IOP experience to a two-year cycle that will allow investigators to move naturally through exploration to action, thereby allowing for the examination of impact on student learning.
- adjusting the instruction and coaching around framing research questions so that student learning must be part of the questioning process and support teachers in articulating the outcomes they seek for students more explicitly.
- modeling a closer/tighter connection to student learning during the questioning and data analysis segments of the program.
- engaging administrators in learning opportunities that will allow them to ask appropriate follow-up questions, support the design of “action” based on the previous year’s work, and strengthen focus on student learning in the classroom.