



**Carnegie Foundation** for the Advancement of Teaching

## **ADVANCING TEACHING – IMPROVING LEARNING (ATIL)**

Continuous Improvement  
Methods Expert Convening

### **MEETING SUMMARY**

Stanford, CA • January 23–24, 2014

Report prepared by Lee Nordstrum

**February 2014**

Carnegie Foundation for the Advancement of Teaching  
Stanford, CA

*Funded through a cooperative agreement with the Institute of Education Sciences*

Convening Summary

## BACKGROUND AND INTRODUCTION

The Advancing Teaching – Improving Learning (ATIL) program at the Carnegie Foundation for the Advancement of Teaching is funded by a cooperative agreement with the US Department of Education’s Institute of Education Sciences (IES). Since its inception, ATIL has conducted a great deal of work around teacher assessment and evaluation, with a particular emphasis on student achievement growth as a measure of teacher effectiveness. States and districts now routinely employ measures in their efforts to improve classroom practices, instruction, and education outcomes.

Over the course of the program, ATIL’s emphasis has grown from assessment and evaluation at the level of the individual teacher to include a consideration of the systems necessary to facilitate quality teaching in all classrooms and for all children. A central question has become how data and evidence can be used thoughtfully to increase quality in the processes of *teaching*, rather than simply as tools for assessing *teachers*. This shift from assessing teachers to supporting quality teaching is a subtle but important one, for at its heart lies an as yet unresolved tension in US education systems—that between evaluation and improvement. This tension is neatly summarized in a 2014 brief by one of the Carnegie Knowledge Network’s expert authors, Susanna Loeb. Loeb makes the point that the basis of most teacher assessment and evaluation—student achievement growth—provides little to no information that schools, districts, or teachers can use to improve classroom instructional practices. Our educational system has spent immense resources building up its evaluative capacity on the theory that better evaluation will lead to educational improvement, but has done relatively little to increase its capacity to improve

Increasingly, however, there is interest from the local, state, and federal level in developing the improvement capacity of educational systems. Indeed, IES recently accepted proposals in response to a new solicitation on this precise topic: research–practitioner partnerships undertaking improvement work in states, districts, and schools. This waxing interest in quality improvement methods has highlighted a profound problem of terminology in the improvement field. The term “continuous improvement” was never defined in IES’s request for proposals, and there is no other specific common language in use among educational leaders and practitioners. Rather, there appears to be such a cacophony of terms, methods, and approaches that educational leaders and practitioners find it difficult to meaningfully discern between various improvement methods. Even the term “improvement science” is fraught with confusion. For some it is a precise methodology consisting of established tools and scientific routines. For others it is a disposition, a habit of mind and behavior. Clearly there is a benefit to organizing this intellectual landscape and sharing it with the field; district and school leaders, as well as their funding partners, require a way to make sense of the various approaches to improvement and to decide which, if any, might address their specific problems of practice.

## MEETING OVERVIEW

On January 23-24, the Carnegie Foundation convened a group of 19 research and practice experts in the field of continuous improvement.<sup>1</sup> The research experts were selected for their substantial expertise in particular improvement methods and for their contributions to their respective methodologies. Improvement methods represented were Deliverology, Design-Based Implementation Research, Implementation Science, Lean, Model for Improvement, and Six Sigma. Practice experts included representatives from school districts and education organizations engaged in improvement work using one or another of these models in some capacity. These practice experts also served as “mirror panelists”—at various points through the convening, they were asked to reflect on what they had heard and the implications for their work with school districts. The two types of expert were purposefully brought together in order that they might listen to and learn from one another’s experiences and expertise.

The ATIL team approached the convening with the assumption that a comparative knowledge product that identified and described various improvement methods, as well as highlighted case examples of their use in practice, would add considerably to educational leaders’ ability to employ improvement methods in local education authorities (LEAs). To this end, the overarching goals of the convening were as follows:

- To understand the commonalities and differences between quality improvement methods;
- To understand the attributes of problems best-suited for particular quality improvement methods; and
- To work toward the development of a framework of quality improvement methods relevant to the K-12 context.

## MEETING DESIGN

The meeting was designed to facilitate participants’ interaction with a draft comparative framework in the form of seven questions that compared the continuous improvement methods present at the convening. The questions comprising the draft framework, enumerated below, were developed by ATIL prior to the convening during a 90-day research cycle.<sup>2</sup>

Day One was divided into six sessions; each improvement method had a session devoted solely to its explication and subsequent synthesis work.<sup>3</sup> During each session, the research expert in each improvement method gave a 15-minute presentation addressing three of the seven questions in the

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<sup>1</sup> For a list of participants, please see Appendix B

<sup>2</sup> For more on 90-day cycles, see Park, S. and Takahashi, S. (2013). 90-Day Cycle Handbook. Carnegie Foundation for the Advancement of Teaching.

<sup>3</sup> For a schedule of events, please see Appendix A.

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draft comparative framework and presented a case example of the method in practice. Specifically, each presenter was asked to elaborate on the following points:

1. What types of problems does the method address?
2. What are the primary components of enacting the method?
3. What are some challenges and limitations of the method?

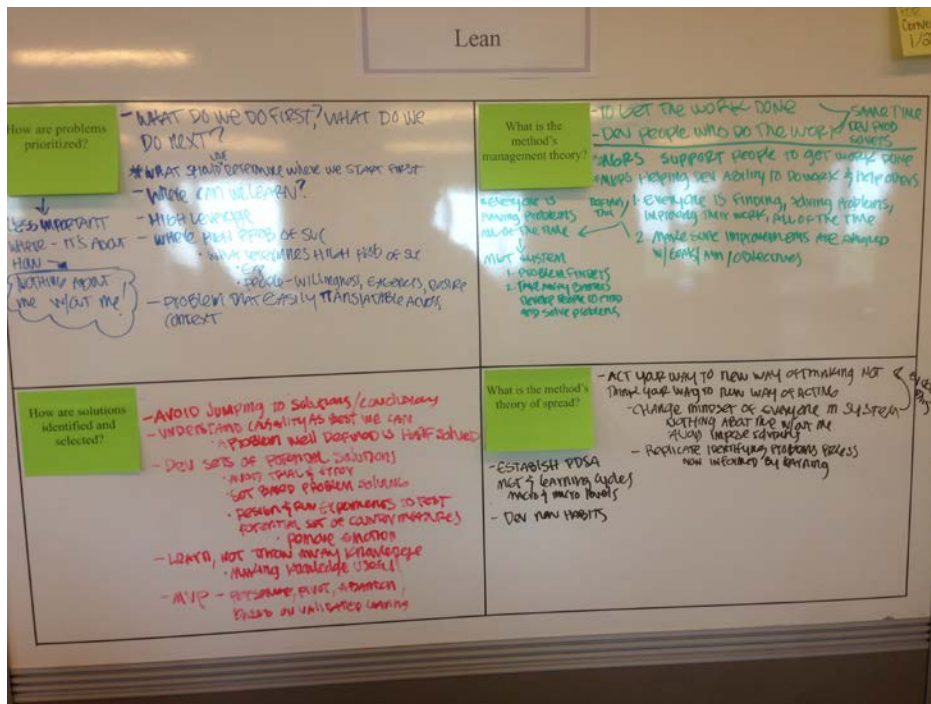
Each set of presentations was followed by small “table group” discussions facilitated by Carnegie staff members. In order to ground the conversation in contemporary problems of practice faced by districts, schools, and teachers, each discussion began with a “mini reflection” by that group’s practice expert (or experts). Subsequent to this short reflection, the small groups discussed the method and case examples that had just been presented, as well as the attributes of the improvement method, how it compared to others’ methods, and the implications of its use for education systems. This session design—reflections from practice experts followed by small group discussion—was intended to focus conversation on practical problems of practice, as well as elevate the voice of practice experts, who were fewer in number than research experts. Evaluations filled out by participants after the convening confirmed the effectiveness of the session design.

Day Two started with more extensive reflections from practice experts. Whereas on Day One their reflections focused on one method at a time, on Day Two they were prompted to synthesize overall themes, raise points not discussed the previous day, and bring up questions or concerns that the discussions had raised for them. Subsequently, participants broke into small groups based on improvement method, facilitated by Carnegie staff members. The small groups were asked to respond to the following four questions in the draft comparative framework:

1. How are problems prioritized?
2. What is the method’s management theory?
3. How are solutions identified and selected?
4. How are improvements or innovations spread?

Responses to these prompts were recorded on whiteboards by Carnegie facilitators and some conversations were recorded as well. An example of data obtained by this small group exercise can be seen in Figure 1 below.

Figure 1: Small group whiteboard recording from Day Two



Day Two concluded with a general discussion to elicit opinions on whether a comparative framework such as the ATIL draft would be useful to the field of education. The goal of the framework, or comparative knowledge product, would be to describe different methods of improvement work for a largely educator audience, and enable users to discern the attributes and respective approaches to improvement work of different models. Most convening participants confirmed that such a comparative knowledge product would in fact be useful in the field of education.

### KEY TAKE-AWAYS

- Continuous improvement entails work that looks significantly different from that seen in many districts and schools. Among other things, continuous improvement as an approach entails adherence to a specific and rigorous method of conducting educational work.
- Continuous improvement methods are not mutually exclusive, but can be combined to serve various aims and solve various problems in educational contexts. Several district representatives employ various improvement methods to address different types of problems at different levels of their organization. This requires thoughtful orchestration of improvement work on the part of district and school leaders. It also suggests the value of a product that clarifies the appropriateness of these methods to various kinds of problems.
- The increasing presence of and interest in improvement work in the field of education necessitates that educational leaders, and the organizations that support them, be able to

understand and distinguish between various improvement models in order to pick a particular approach (or set of approaches) purposefully and intelligently.

- There is much in common between numerous improvement methods; however, there are also significant differences between them, particularly the level at which these approaches operate (e.g., district, school, classroom); where solutions and innovations come from; and the processes of “doing” improvement work. These differences should not be glossed over.
- According to their evaluations, participants felt that the structure of the convening encouraged collaboration and professional learning, that the work undertaken during the convening was significant, and that the voices of practitioners were respectfully amplified. On the other hand, participants also felt that the design work on the draft comparative framework conducted on Day Two warranted more than half a day.<sup>4</sup>

### **ATIL WORK ON CONTINUOUS IMPROVEMENT GOING FORWARD**

Following this convening, the ATIL team will develop a compiled volume of seven improvement methods: Carnegie’s Model for Improvement, Deliverology, Design-based Implementation Research, Implementation Science, Lean, Positive Deviance, and Six Sigma. The volume will aim to enable a practitioner and non-technical audience to distinguish between seven methods of improvement work by evaluating their respective postures toward the work of improvement, their attributes, and the problems they are best suited to address. Each method will be illustrated by a brief case example in education. This volume will be released in fall 2014.

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<sup>4</sup> See Appendix C for further detail of convening evaluation results.

## APPENDIX A: CONVENING AGENDA



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# Advancing Teaching – Improving Learning

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## Continuous Improvement Expert Convening

January 23–24, 2014 • Stanford, CA

### Day 1

- 9:00-9:05**      **Welcome – *Anthony S. Bryk, President***
- 9:05-9:45**      **Introduction – *Lee Nordstrum, Research Associate***
- 9:45-10:55**      **Model for Improvement**
- 15-minute presentations:*
- 1) *Brandon Bennett – Improvement Science Consulting*
- 2) *Joan Grebe – Joan Grebe Consulting*
- 3) *Jane Taylor – Independent Consultant*
- Small group discussion
- 10:55-11:15**      ***Break***
- 11:15-12:25**      **Implementation Science**
- 15-minute presentations:*
- 1) *Russell Glasgow – University of Colorado School of Medicine*
- 2) *Barbara Kelly – University of Strathclyde*
- 3) *Daniel Perkins – Penn State University*
- Small group discussion
- 12:25-1:30**      ***Lunch***
- 1:30-2:10**      **Deliverology**
- 15-minute presentation:*
- 1) *Kathy Cox & Nick Rodriguez – Education Delivery Institute*
- Small group discussion

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**2:10-3:05**      **Six Sigma**

*15-minute presentations:*

- 1) *Elizabeth Cudney – Missouri University of Science & Technology*
- 2) *Mikel Harry – Six Sigma Management Institute*

Small group discussion

**3:05-3:25**      **Break**

**3:25-4:05**      **Design Based Implementation Research**

*15-minute presentation:*

- 1) *Christopher Harris & Barbara Means – SRI International*

Small group discussion

**4:05-5:00**      **Lean**

*15-minute presentations:*

- 1) *Bob Emiliani – Central Connecticut State University*
- 2) *John Shook – Lean Enterprise Institute*

Small group discussion

**5:00**            **Closing**

## Day 2

**8:30-9:00**      **Opening and reflections on Day 1**

*Practitioner mirror panelists*

- 1) *Laura Baker*
- 2) *Pat Greco*
- 3) *Laura Schwalm*
- 4) *Melanie Taylor*

**9:00-10:10**      **Small group work: *Comparative framework of continuous improvement methods***

- Presentation of framework
- Small group work

**10:10-10:45**      **Open discussion: *Developing the framework & making it relevant for K–12 education systems***

**10:45-11:00**      **Closing**



## APPENDIX B: CONVENING PARTICIPANT LIST

### Laura Baker

Practice Expert  
Assistant Director of Professional Development  
Austin Independent School District  
[Laura.baker@austinisd.org](mailto:Laura.baker@austinisd.org)

### Brandon Bennett

Research Expert – Model for Improvement  
Improvement Advisor  
Improvement Science Consulting  
[improvement.science@gmail.com](mailto:improvement.science@gmail.com)

### Kathy Cox

Research Expert – Deliverology  
CEO  
Education Delivery Institute  
[kcox@deliveryinstitute.org](mailto:kcox@deliveryinstitute.org)

### Elizabeth Cudney

Research Expert – Six Sigma  
Associate Professor of Engineering  
Management & Systems Engineering  
Missouri University of Science and Technology  
[cudney@mst.edu](mailto:cudney@mst.edu)

### Bob Emiliani

Research Expert – Lean  
Professor  
Central Connecticut State University  
[bob@bobemiliani.com](mailto:bob@bobemiliani.com)

### Russell Glasgow

Research Expert – Implementation Science  
Visiting Professor, Family Medicine  
Associate Director, Colorado Health Outcomes  
Program  
University of Colorado School of Medicine  
[Russell.Glasgow@ucdenver.edu](mailto:Russell.Glasgow@ucdenver.edu)

### Joan Grebe

Research Expert – Model for Improvement  
Independent Healthcare Consultant  
Joan M. Grebe Consulting  
[jgrebe@astound.net](mailto:jgrebe@astound.net)

### Pat Greco

Practice Expert  
Superintendent of Schools  
School District of Menomonee Falls  
[GrecPat@sdmfschools.org](mailto:GrecPat@sdmfschools.org)

### Christopher Harris

Research Expert – Design-Based  
Implementation Research  
Senior Researcher, Science Education  
Center for Technology in Learning  
SRI International  
[christopher.harris@sri.com](mailto:christopher.harris@sri.com)

### Mikel Harry

Research Expert – Six Sigma  
Founder and CEO  
Six Sigma Management Institute, Inc.  
[Dr.Mikel.Harry@Gmail.com](mailto:Dr.Mikel.Harry@Gmail.com)

### Barbara Kelly

Research Expert – Implementation Science  
Deputy Director  
MSc Professional Training in Educational  
Psychology  
School of Psychology and Health  
University of Strathclyde  
[barbara.kelly@strath.ac.uk](mailto:barbara.kelly@strath.ac.uk)

### Jaime Kidd

Practice Expert  
Director of Program Development & Support  
Partners in School Innovation  
[jkidd@partnersinschools.org](mailto:jkidd@partnersinschools.org)

## Continuous Improvement Methods Expert Convening Summary

### **Barbara Means**

Research Expert – Design-Based  
Implementation Research  
Director, Center for Technology in Learning  
SRI International  
[barbara.means@sri.com](mailto:barbara.means@sri.com)

### **Daniel Perkins**

Research Expert – Implementation Science  
Professor of Family and Youth Resiliency and  
Policy  
Penn State University  
[dfp102@psu.edu](mailto:dfp102@psu.edu)

### **Nick Rodriguez**

Research Expert – Deliverology  
K-12 Director  
Education Delivery Institute  
[nrodriguez@deliveryinstitute.org](mailto:nrodriguez@deliveryinstitute.org)

### **Laura Schwalm**

Practice Expert  
Senior Partner  
California Education Partners  
[LauraS@caedpartners.org](mailto:LauraS@caedpartners.org)

### **John Shook**

Research Expert – Lean  
Chairman and CEO  
Lean Enterprise Institute  
[jshook@lean.org](mailto:jshook@lean.org)

### **Jane Taylor**

Research Expert – Model for Improvement  
Improvement Advisor  
[jane1taylor@mac.com](mailto:jane1taylor@mac.com)

### **Melanie Taylor**

Practice Expert  
Associate Superintendent of Curriculum and  
Instruction  
Iredell-Statesville Schools  
[mtaylor@iss.k12.nc.us](mailto:mtaylor@iss.k12.nc.us)

## Carnegie Foundation

### **John Benjamin**

Facilities Director  
[benjamin@carnegiefoundation.org](mailto:benjamin@carnegiefoundation.org)

### **Tony Bryk**

President  
[bryk@carnegiefoundation.org](mailto:bryk@carnegiefoundation.org)

### **Corey Donahue**

Special Associate to the President  
[Donahue@carnegiefoundation.org](mailto:Donahue@carnegiefoundation.org)

### **Alicia Grunow**

Senior Managing Partner, Design,  
Development & Improvement Research  
[grunow@carnegiefoundation.org](mailto:grunow@carnegiefoundation.org)

### **Lillian Kivel**

Post-Baccalaureate Fellow, Communications  
[kivel@carnegiefoundation.org](mailto:kivel@carnegiefoundation.org)

### **Paul LeMahieu**

Senior Vice President for Programs and  
Administration  
[plem@carnegiefoundation.org](mailto:plem@carnegiefoundation.org)

### **Eva Mejia**

Knowledge Manager  
[mejia@carnegiefoundation.org](mailto:mejia@carnegiefoundation.org)

### **Amanda Meyer**

Post-Baccalaureate Fellow, Learning Teaching  
Programs  
[meyer@carnegiefoundation.org](mailto:meyer@carnegiefoundation.org)

### **Jeannie Myung**

Senior Associate and Acting Director,  
Advancing Teaching - Improving Learning  
[myung@carnegiefoundation.org](mailto:myung@carnegiefoundation.org)

## Continuous Improvement Methods Expert Convening Summary

### Lee Nordstrum

Research Associate, Learning Teaching  
Programs

[nordstrum@carnegiefoundation.org](mailto:nordstrum@carnegiefoundation.org)

### Sandra Park

Director of BTEN &  
Associate for Improvement Science

[park@carnegiefoundation.org](mailto:park@carnegiefoundation.org)

### Holly Szafarek

Program Coordinator

[szafarek@carnegiefoundation.org](mailto:szafarek@carnegiefoundation.org)

### Chris Thorn

Managing Director, Analytics and Program  
Technology

[thorn@carnegiefoundation.org](mailto:thorn@carnegiefoundation.org)

### Kareen Yang

Program Manager

[yang@carnegiefoundation.org](mailto:yang@carnegiefoundation.org)

**APPENDIX C: CONVENING EVALUATION RESULTS**

What was particularly rewarding about this convening?	What was missing in our conversations? What could be improved?	In what ways, if any, would you be interested in continuing to work with us?
Knowledge sharing. Learning more about various improvement methodologies and how I can apply in daily work. Great organization and structure – kudos to all!	Just more on how to drive down and continue moving to practitioner view – don’t think we can ever get enough!	I'm glad to help however you see a need in the future. We've got to have people to continue to share the stories of how it all fits together.
Hearing from practitioners, meeting a few giants in the field, learning about design based process--I see exciting possibilities that are concrete and real. Learning about implementation framework and how useful it will be to me. Design of day 1.	Moving to action. Feels unfinished. Day 2 was a struggle for me. Was looking forward to new table mates for synthesis and I was keeping notes yesterday and couldn't use or contribute today.	Doing research in a practice setting. Coach practitioners how to research their own practices. Improvement advising. NIC participation. Working as volunteer to move work forward.
Align over shared discussion, Fine grained detailed discussion, covers a variety of methods, mild caution. Learned a lot.	Time: a lot of work in a short period. Wondering what the framework draft will look like. Future ongoing movement is necessary.	Collaborate to design emerging framework.
Connecting research to practice with why.		Deeply appreciate the connection. Want to develop a Boot Camp, Examples Base, storytelling, evidence base over time. Write together.
The opportunity to learn about approaches for continuous improvement, compare and contrast them, and engage in conversation with experts regarding models and approaches. The structure of the convening supported meaningful collaboration among practitioners and experts--experiencing this format was rewarding!	I wish we had more time to define and discuss 'continuous improvement' and the framework. Time to discuss the whiteboard contributions on day 2.	Happy to continue conversation on Design-based Implementation Research and serve as a thought partner on continuous improvement in education.
Learning more about each approach--the background reading and the presentations--but mostly getting to meet the people who are behind these approaches!	More at the beginning about the overall purpose – a framing of the challenges in U.S. educations – kick us off with some data! Then why this new tool would help. More background info on each approach--maybe a 20-25 minute chance to explain instead of 15 minutes.	How could we take the best of each of these and come up with a new way to train principals?

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What was particularly rewarding about this convening?	What was missing in our conversations? What could be improved?	In what ways, if any, would you be interested in continuing to work with us?
Small group discussion (to a point) starting with practitioner reflection. The timed brief presentations and structured template for slides.	Switching tables to interact with different folks. Enough time for discussion of uses of framework – how it could be made actionable.	Review of summary document or if you decide to develop tools for practitioner reflection and guidance.
It was extremely valuable to match practitioners with researchers and improvement experts around a common purpose. The format and facilitation was very effective. The opportunity to build relationships and new connections to support our work was invaluable.	I can think of little that would have improved this convening. The pre readings were helpful and the format of the time together was highly effective.	I am both interested and willing to continue with to work with the foundation in any manner.
The diversity, yet commonality (how do you do that?), the enthusiasm, the organization	It may have helped to have had a better sense of the "purpose" or intended/hope outcome.	I have a couple of specific ideas.
It was great to have extended time talking with folks doing somewhat similar work from different traditions and perspectives. This was one of the best harnessing of the "practitioner voice" I've experienced at a conference. Very well designed!	I would have been interested in more information about how Carnegie plans to use the framework going forward and how it views its own improvement work in relationship to the other six approaches.	Collaborative projects focused on learning outcomes/educational attainment.
Great to listen in on and experience the diversity of perspectives.	Could have used whole of second day to assist product creation.	Definitely have some thoughts about structuring any comparative framework. Please contact.
Conversations with practitioners and researchers. Constant application to practice (kept it real).	Provide slides. Provide videos. Provide summary documents. Would appreciate inquiry be a method to bring in?	Applying improvement tools to school communities/teachers.
The wealth of experience and insight of the participants. The knowledge gained from the methodology used and discussion.		I would like to follow up and hear of the results. I would also like to be involved in developing and measuring implementations. This is a truly remarkable group of individuals and the work is critical.
The openness of the conversation. Process was well thought out. The attention to time was handled respectfully and demonstrated a commitment to use peoples' time wisely.	Not sure of if there is a next step from us. No clear articulation what might be done. A Wednesday - Thursday slot would allow for a longer second day.	So many: DoDEA Idea. Proposal to develop interactive framework and a support infrastructure.

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<b>What was particularly rewarding about this convening?</b>	<b>What was missing in our conversations? What could be improved?</b>	<b>In what ways, if any, would you be interested in continuing to work with us?</b>
<p>Learning perspectives of other methods from several of their progenitors! It was great to rub shoulders with them and to learn from them. The guiding questions for preparing the presentations and to characterize each methodology on day 2 were useful.</p>	<p>I would customize the discussion question to reflect each methodology. I would also have common questions to guide the case studies. Some of them were not terribly clear or got little attention in the presentations, but was perhaps the most important ways for us to understand the work.</p>	<p>As you shape your follow-up work, particularly with IES, I would be interested in being a part of the conversation and, potentially, a practitioner partner in the future.</p>



## Carnegie Foundation for the Advancement of Teaching

Carnegie Foundation for the Advancement of Teaching  
51 Vista Lane  
Stanford, California 94305  
650-566-5100

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