

# National Academy of Education



## International Comparative Education Research: A Few Considerations

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September 2016

# The Policy Imperative



The single most important research question facing the United States in education:

1. How to match the performance of a group of more than 25 countries that are outpacing the United States in reading, mathematics, science and problem solving
2. *-or, put another way-*
3. How to identify the factors that contribute to superior education system performance at the scale of a nation or state in terms of average achievement, equity and efficiency

# The Methodological Challenge



1. Dominant U.S. research methodology: Use theory to identify high potential interventions, prototype them, implement them, conduct research on them intended to determine the effect of the intervention while controlling statistically for all other independent variables
2. The gold standard for this kind of research: double blind random assignment

# The Methodological Challenge: Part II



1. Not possible to randomly assign national populations to national “treatments” (e.g., education systems)
2. If the challenge is to identify the determinants of effective systems, one cannot by definition study that by isolating the effects of individual policies, programs or interventions, because of system effects
3. Thought experiment: What happens when one implements a highly effective component of one system and installs it in a dysfunctional system

# Goals and Advantages of the Comparative Method



1. The Xerox story
2. What policy makers really do
3. Not to copy but to improve upon
4. Therefore:
  1. Not one country but many
  2. Looking for common principles among successful countries that do not obtain in less successful countries
  3. Countries that adopt those principles should rise in rankings
  4. Countries that abandon them should fall

# Not So Minor Observations



1. Why did the drunkard look for the keys under the streetlight when he lost them 40 feet away? Because that is where the light was — You won't find out how to build highly effective education systems in countries and states that have dysfunctional systems (e.g., the United States)
2. You won't find out how to build effective systems by studying programs, initiatives, projects, schools or leaders (at least 95% of American educational research)
3. You have to go where the keys are (the top performers)

# Why PISA?



1. Knowledge and skills are more important determinants of individual and national economic outcomes than ever before
2. High wage countries like ours will have to shift our whole performance curve far to the right to avoid economic and political breakdown
3. It is essential that we know how we compare to other countries in a world characterized by globally integrated labor markets
4. PISA focuses on the matter at hand: What one *can do* with his or her knowledge and skills

# PISA's Limitations



1. What do we want to know: The degree to which national and state education systems prepare students for a world in which virtually all students in high wage countries must be educated to the standards previously thought necessary only for a small elite
2. 21<sup>st</sup> C. skills are the same skills that the leaders of Eton and Harrow were aiming for in 1895, except for the ability to use modern information technology
3. PISA measures only a small part of that range

# PISA's Limitations (Part II)



1. Tells observer what students achieve and correlates that data with a wonderful array of background data; suggests where one might look for causes but does not establish cause
2. Does not tell the observer what government was trying to achieve, what strategies it pursued to achieve them, what obstacles government faced in doing that, what the politics were, what government thought worked and what did not and what they did about it
3. In short, it does not tell the observer what to do to achieve the results observed

# Overcoming PISA's Limitations



1. Use PISA data to develop hunches about the principals that might underlie superior national performance
2. Test those hunches by going very deep in the countries of interest—history, economy, politics, institutional structure
3. Get as many perspectives on the system as possible from as many vantage points as possible
4. Take into account all the quality data available
5. Keep adjusting the hypotheses until they fit the facts, not the other way around
6. Never stop
7. That is what the top performers actually DO

# Building a Research System for Systematically Improving National Education Performance



1. U.S. Government requires every state to participate in PISA and pays for that participation
2. U.S. Government sets aside not less than 25 percent of national education research budget for international comparative research,
3. Not less than half of that for comparative research on education systems at the scale of state or nation
4. Not less than 10 percent of the comparative research budget for research on the development of methods of research appropriate for comparative research on education systems at scale

# Your Questions (At Least Some of Them)



1. “Adoration” of particular countries (don’t do it)
2. Should we even be comparing countries? (Yup!)
3. What have we learned? (How much time have you got?)
4. Skills sets and countries (The skills your country needs depends on the price of its labor)
5. Non-cognitive measures (The Next Frontier, but don’t hold your breath)
6. Causal inferences (Back to Xerox)