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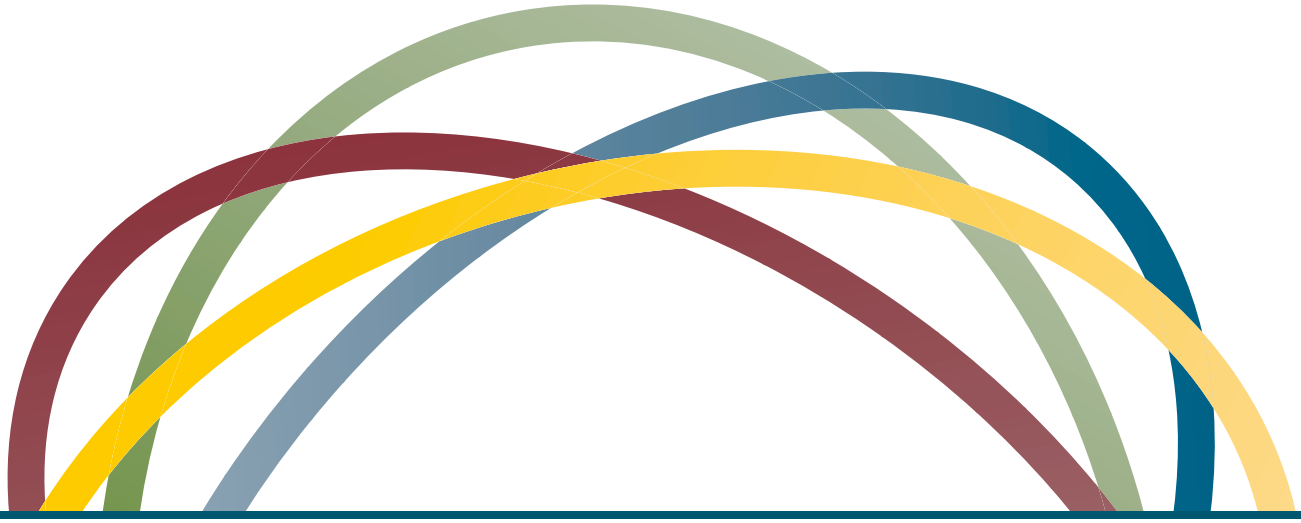

Comprehensive Services for Children in Poverty

Setting the Research Agenda for Integrated Student Support

CONFERENCE REPORT

BOSTON COLLEGE
Lynch School of Education and Human Development
MARY E. WALSH CENTER FOR THRIVING CHILDREN

AERA AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

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From the Conveners

In October 2017, leading scholars across fields including the developmental sciences, economics, educational research methodology, and law gathered at Boston College to discuss research with significant implications for improving educational and economic opportunity in America. The Mary E. Walsh Center for Thriving Children at the Boston College Lynch School of Education convened 29 scholars to discuss research on integrated student support (ISS), a school-based approach to promoting achievement by coordinating community and school-based supports and services to target both academic and non-academic barriers to learning.

A focus on ISS strategies is timely. Our nation is seeing a proliferation of attempts to meet the complex needs of children in schools. These community-involved efforts are increasingly supported by state and federal investments, and the Every Student Succeeds Act of 2015 includes language recognizing the importance of ISS to improve student outcomes. In addition, research is producing insights with broad implications for both policy and practice. These include an enhanced understanding of the influences of poverty and trauma on learning, and how these impacts can be addressed; and promising empirical research demonstrating relationships between ISS and student outcomes.

Over a day and a half, this interdisciplinary group of leading researchers focused on three primary aims:

- To distill what we know about ISS
- To determine gaps in knowledge about what does and does not work in ISS and why
- To develop key research questions to define a national agenda that can ultimately inform the policy and practice of integrated student support

This report synthesizes the discussions and presentations that took place during the conference, and outlines a research agenda to advance our understanding of ISS.

The challenge facing America's schools is urgent. According to the National Center for Education Statistics, 52% of students nationwide are eligible for free or reduced-price lunch. We must find ways to educate children living in poverty and other challenging circumstances to be ready to participate in 21st century civic and community life and the workforce. Understanding ways to help all children achieve academic success and thriving is of utmost importance. We are grateful to all of the attendees of the conference, whose collaboration and insights advance this vital conversation.

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The 2017 conference and the resulting report were made possible through the contributions of leading scholars in the fields of student support, child development, economics of education, and methodology. The ideas presented in this report are based on important group discussions which took place during the conference, as well as presentations and publications by many of the attendees. We would like to extend our gratitude to these attendees, who also contributed to and provided feedback on this report:

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We would also like to thank Massachusetts State Representative Alice Peisch and Boston Public School principal Yeshi Gaskin-Lamour, who shared their perspectives on ISS during the conference. We are grateful to Stanton Wortham, Dean of the Lynch School of Education at Boston College, who expressed his commitment to the mission of ISS in his conference welcome.

This convening would not have been possible without the financial support of the American Educational Research Association, which awarded an Education Research Conference grant to organize and host this event at Boston College. We would also like to thank the Paul and Phyllis Fireman Charitable Foundation for providing additional financial support.

Executive Summary

In October 2017, 29 leaders in educational research and methodology gathered at Boston College to better understand the current state of the research on ISS and to begin developing research questions to form a national agenda to move this nascent field forward in the next decade. A broad consensus emerged on several points.

- The time for this research is ripe. Social, demographic, economic, and policy trends at local and national levels all signal the critical importance of systematic, effective ways to coordinate school- and community-based supports for students.
- There is already promising evidence that comprehensive supports can promote students' academic achievement and life chances, and it is worthwhile to build on this evidence base.
- Researchers must now seek to understand ISS implementation more deeply, including the influence of context and the relative importance of different elements and features of ISS interventions. Finally, as they continue to study outcomes for students, researchers should widen their lens—for example, pursuing more studies of non-academic outcomes.

Specific ways to pursue this work include taking advantage of the heterogeneity across ISS interventions to probe the importance of different inputs. Also, exploring systemic impacts can help align research with theories of change, which are often complex in ISS because of the network of relationships ISS interventions often facilitate across schools, families, neighborhoods, and communities. Natural experiments may arise, with opportunities to use existing data. Qualitative methods will be critical to understand both inputs and outcomes.

Social, demographic, economic, and policy trends at local and national levels all signal the critical importance of systemic, effective ways to coordinate school- and community-based supports for students

Finally, there was agreement that paying attention to generalizability of findings across populations of schools and students and studying the benefits of ISS interventions relative to their costs will be important if research on ISS is to be relevant and useful to policymakers, school districts, and communities.

Attendees collaborated to distill a number of research priorities for the field, which are presented in the form of a research agenda before the conclusion of this report.

Setting the Stage: The New American Economy and What It Means for Education

The provision of ISS has begun to burgeon in this country as the number of children living in poverty has increased. To explain the current context of education in America, Professor Henry Braun opened the conference by sharing his work with the Opportunity in America Project at the Educational Testing Service. He explained how demographic and educational trends combine with new demands of our technology-driven globalized economy to produce devastating life prospects and outcomes for low-income people and those with low levels of education.

Professor Richard Murnane also spoke about new demands of the American workforce, namely, that changes in the economy have increased the importance of both academic and social skills. These changes, combined with growing segregation in the United States, have made it especially difficult for low-income youth to develop the skills needed to obtain well-paying jobs and break free of the cycle of poverty.

Growing Inequality in the United States

Extensive research has documented the differences between being born into poverty and being born into a middle-class family. The risks associated with growing up in poverty include lower achievement, higher rates of externalizing and internalizing problems, and adolescent criminality.[1] Recent work in neuroscience has demonstrated that children in low-income families on average have less brain surface area than their non-poor counterparts, and these physical differences are associated with lower cognitive functioning in poor children.[2]

Achievement gap

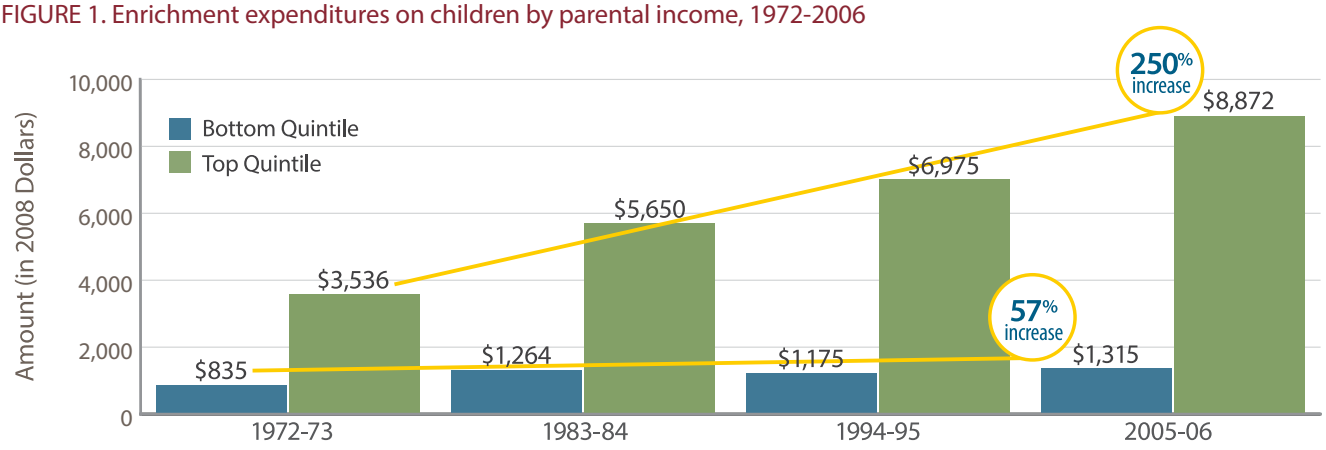
The size of the achievement gap between poor and affluent children is comparable to the gap between fourth and eighth grade students.[3] Moreover, this achievement gap translates directly into educational attainment and life chances; youth growing up in extreme poverty, for example, have been estimated to be 12 times less likely to graduate from high school than youth in middle class families.[4] This achievement gap is widening, with the gap between children from high and low-income families now 30-40% larger among children born in 2001 compared to those born in the mid 1970s.[5]

Income inequality

There are several mechanisms through which increased family income inequality has increased inequality in educational outcomes. First, income allows families to purchase materials, experiences, and services to invest in their children (such as books or educational outings).[6] Conversely, poverty limits families' capacity to invest material resources that promote and support learning. Figure 1 on the next page displays how the growing disparity in family income over time has resulted in a growing disparity in parental expenditures on children between families in the bottom and top income quintiles. Between 1973 and 2006, while the bottom quintile of families increased their enrichment expenditures on their children by 57%, the top quintile increased their enrichment expenditures on their children by 250%.[7]

> Low-income families have limited access to the material and psychosocial resources needed to support learning and child development

FIGURE 1. Enrichment expenditures on children by parental income, 1972-2006



SOURCE: Adapted from "The Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances"—Greg J. Duncan & Richard J. Murmane

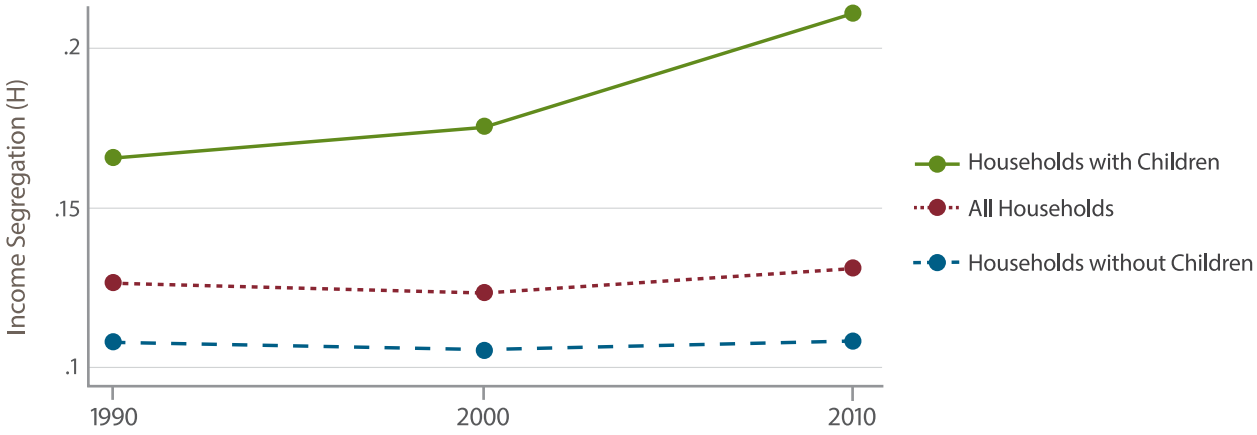
These differences contribute to very different educational trajectories for these children, which in turn have a negative impact on the life chances of poor children.

Manifestations of poverty also include limited access to health insurance, food insecurity, parent under-employment, and inadequate access to child care.[8] These limitations may restrict not only material but also psychosocial resources a family can provide to support a child's development.

Income segregation

Income segregation between neighborhoods is also growing, meaning that high-income families have become less likely to live in the same neighborhoods as middle- or low-income families. A 2016 study demonstrated that between 1990 and 2010, income segregation increased only among families with children (Figure 2).[9] In fact, the relationship between income inequality and income segregation is twice as large among families with children compared to those without children. As inequality in family income has increased, high-income families gained more resources, allowing them to purchase homes in neighborhoods with better schools. This growing gap between neighborhoods is reflected in the demographics of the schools in these neighborhoods, which may lead to inequality in teacher quality, parent involvement, and other contextual factors that may affect the overall quality of the schools, and in turn, the outcomes of the students that attend them.

FIGURE 2. Average income segregation between neighborhoods by household composition in the 100 largest Metropolitan Statistical Areas, 1990-2010

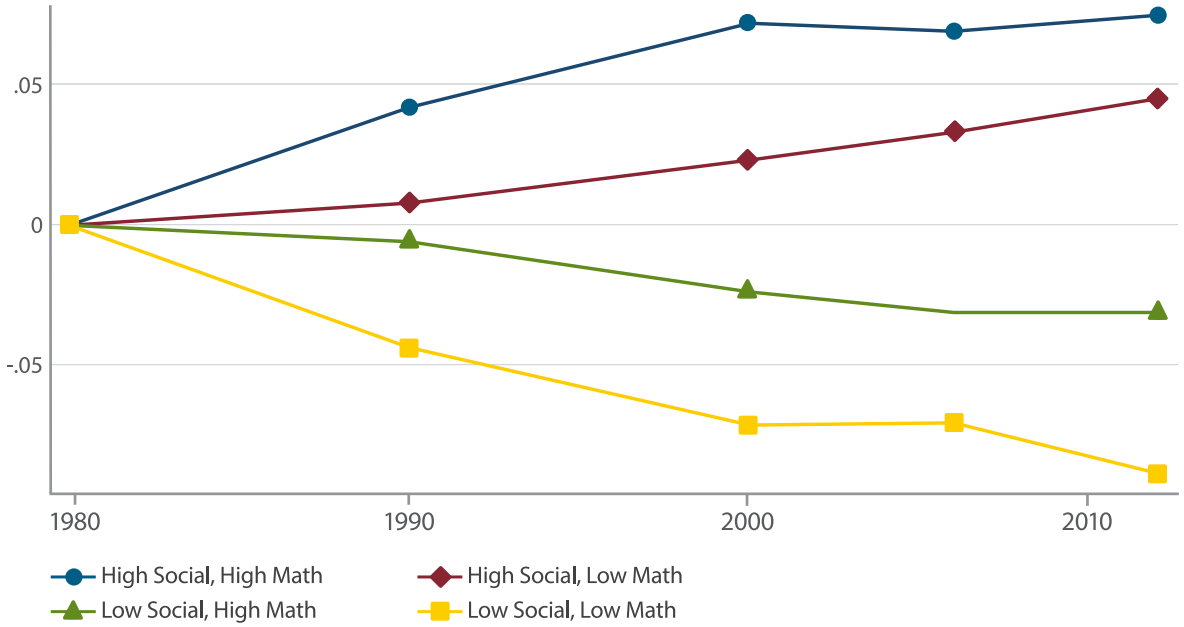


SOURCE: Reprinted from "Inequality in Children's Contexts: Income Segregation of Households with and without Children"—Ann Owens (2016)

Demands of the New Economy

The disparities between students of different socioeconomic status are particularly problematic given the demands of today's labor market. In today's globalized, technology-driven economy, more jobs require high levels of analytic and social skills. Decades ago, well-paying factory jobs required only the skills of a typical high school graduate. The workers that performed these routine manual jobs have largely been replaced with technology, and now well-paying jobs are more available to people with high levels of education, and superior academic and social skills. Technical problem-solving skills, as well as social, communication, and teamwork skills, are also in higher demand. Figure 3 demonstrates the growth of occupations requiring high math and social skills, as well as the stagnation and decline of jobs requiring only low levels of social and math skills.[10] Employers are now seeking workers who can keep up with the pace of technology, and who can also benefit from training programs and take the initiative to learn and improve their skills as technology improves.[11]

FIGURE 3. Occupational Task Intensities



SOURCE: Reprinted from "The Growing Importance of Social Skills in the Labor Market"—David J. Deming (2017)

This change in the economy makes the ever-widening gap between poor and non-poor even more critical, as it multiplies the deleterious effects of poverty. Schools are faced with the overwhelming task of educating students despite the many out-of-school disadvantages encountered by poor students. Although teachers now have the task of helping their students to develop high levels of social and academic skills, they are also increasingly burdened by classroom management difficulties and other consequences of the out-of-school challenges that students growing up in poverty experience each day. Overcoming these challenges, and developing graduates who have high levels of social and academic skills, is of critical import to the growth of the American economy and to the life chances of children, as the need for a well-educated workforce in an increasingly technology-driven society will persist.

Integrated Student Support as a Potential Solution

As the divide between students across socioeconomic classes grows, schools cannot close the achievement gap without a systemic approach to addressing out-of-school disadvantage. Schools have traditionally had a fragmented and incomplete approach to student support, serving a small number of high-need students and focusing on risk without addressing the full range of strengths and needs. Student support typically has not operated as a core function of schools.[12]

Student support must be systemic, occupying a central position in schools, and building ties to community agencies and organizations that can support students. The ISS approach offers a comprehensive and coordinated set of services, supports and opportunities to address the risks and bolster the strengths of students growing up in poverty

In response to these circumstances, scholars have called for schools to adopt comprehensive, coordinated approaches to addressing the non-academic needs of students. Student support must be systemic, occupying a central position in schools, and building ties to community agencies and organizations that can support students.[13] ISS approaches can meet this need, offering a comprehensive and coordinated set of services, supports, and opportunities to address the risks and bolster the strengths of students growing up in poverty.

Understanding Integrated Student Support and Its Evidence Base

What is Integrated Student Support?

ISS is a general term for coordinated efforts to connect individual students to specific supports, enrichments, and services in the district and community that can address students' interests, strengths, and needs, enhancing their ability to learn and thrive in school. In a conference session, Mary Walsh noted that over time, a variety of terms have been used to refer to similar work, including *wraparound services, community schools,* and *student support*.

The idea of addressing students' comprehensive needs is strongly rooted in developmental theory. Classic systems theories posit that development is the result of interactions between the various contexts in which the child lives, including school, home and neighborhood, as well as the child's biology.[14] Developmental systems theory builds upon this idea, but also emphasizes that outcomes are a result of the interactions between risk factors, strengths, and protective factors.[15] Because risks and strengths co-occur, the presence of a risk factor does not necessarily lead to a negative outcome because development is known to be malleable. Appropriate interventions can make a substantial difference in child outcomes.

Developmental psychologist Uri Bronfenbrenner explained that fully understanding human development "requires examination of multiperson systems of interaction not limited to a single setting, and must take into account aspects of the environment beyond the immediate situation containing the subject."[16] Because ISS approaches are consistent with this theory, they recognize that the whole child must be considered. Children, particularly those growing up in poverty, face many challenges outside of the classroom. A lack of stimulating activities in the home, food insecurity, homelessness, trauma, or illness that goes untreated can have impacts not only on a student's academic performance, but also on his or her social-emotional wellbeing, physical health, and family. For this reason, ISS considers multiple domains of child development when connecting students to services.

In its 2014 report, Child Trends identified five common components across existing ISS approaches.[17]

- **Needs assessments** are typically conducted so that the intervention is driven by the particular needs of the students and schools being targeted. Most models focus on community, school, and student needs, but some also consider family needs.
- **Supports are coordinated** so that students can be connected with an appropriate set of community and/or school-based supports. Often times, a staff member within the school has the role of coordinating these connections between the school and community agencies.
- **Interventions are integrated within schools**, although programs vary in the degree to which school staff are involved with the coordination and monitoring of student supports. Schools are a logical site for support, given that they are a site where various contexts and systems in a child's life (e.g., family, community) intersect.
- **Community partnerships** are seen as vital resources to implementation, and are drawn upon to meet the needs of students and families.
- **Data collection and tracking** is vital, as interventions use this information to identify barriers, track the services students receive, and understand the impact of the intervention on student outcomes.

At the same time, because specific ISS approaches emerged from the work of practitioners responding to need, there is variation within these five categories, and different approaches may emphasize other important categories, such as close partnerships with families. As discussed below, a critical area for research identified at the conference is to better understand the essential elements of ISS within these categories, allowing our framework to evolve with research.

What Do We Know About Integrated Student Support Approaches?

A comprehensive review of the existing research base on ISS was published by Child Trends in 2017.[18] That review concluded that research to date finds a mix of positive and null (non-significant) findings, but generally does not find negative effects across evaluations. Several strong evaluations found support for particular ISS models. Additionally, recent studies have demonstrated that ISS yields a net financial return on investment.

Although analytic approaches and sample selection methods have varied widely, the research base on outcomes of ISS interventions is small but growing.

Findings include:

- Improved academic achievement, measured by report card grades and standardized test scores[19 20]
- Improved attendance, greater credit completion, and lower high school dropout rates[21 22]
- School engagement[23]
- Lower incidence of risky behavior (e.g., drug use, teen pregnancy)[24]
- Improved classroom behavior, work habits, and effort[25]
- Better school climate[26]
- Student-staff relationships[27 28]
- An economic return on investment[29 30 31]

During the conference, five scholars presented research and evaluation results for specific ISS interventions. In reviewing what we have learned from the existing research, these scholars presented evidence that ISS can make a difference for students.

Hannah Lantos and Kristin Anderson Moore summarized information from the 2017 Child Trends report on ISS approaches. The report highlighted that most results from outcome evaluations are positive or null, and that studies examining non-academic outcomes are largely missing from the field.

Anastasia Raczek presented evidence that students experiencing City Connects in elementary school outperform comparison peers on report card scores and test scores in elementary and middle school, and have lower rates of chronic absenteeism and dropout in high school. Positive outcomes converge across a number of rigorous methodologies, including propensity score weighting, difference-in-differences analyses, and regression discontinuity.

Leigh Parise also presented findings on a particular intervention, sharing results from MDRC's evaluation of Communities In Schools. Although the whole school model for Communities In Schools did not increase test scores, a select group of students receiving more intensive case management had more positive non-academic outcomes, such as better school engagement and more positive relationships with peers.

Marieke Heers presented her work on community schools, concluding from her literature review that more causal evidence is needed before it can be concluded that community schools are effective.[19] She compared this finding to a recent community schools research summary by Jeannie Oakes and colleagues, which concluded that the evidence base on community schools provides "a strong warrant for their potential contribution to school improvement."[20] Heers observed that the different conclusions reached in these reports relate in part to inclusion criteria for both reviews.

These presenters and other attendees also identified questions that merit further exploration. Most of the discussion focused on questions around inputs that still remain unanswered: what are the critical ingredients in these interventions that lead to positive outcomes? This discussion brought to light the importance of fully understanding, both qualitatively and quantitatively, how different pieces of these complex interventions interact to create change at the student level.

Determining the Critical "Ingredients"

The conference discussions that focused on understanding the critical components of ISS approaches represented an important shift, as most research thus far has focused on student outcomes. These discussions mirrored the findings of the 2017 Child Trends report, which concluded that "identification of the specific, concrete elements that comprise each of these components [of ISS] is evolving slowly; this work represents the critical frontier for research and practice."[21] To date, no studies have included measures of specific components of their intervention in their statistical models, so it has not been possible to identify which elements of these complex, multifaceted interventions may be driving change.

In order to understand which components of ISS are critical and how they interact as interventions scale up, the development of fidelity monitoring systems is crucial to ensure that programs are being implemented as intended. Two key steps in developing fidelity monitoring systems are having a coherent theory of change, and specifying the essential components of the intervention. Although most ISS approaches include most or all of the five components identified in the Child Trends report, it would be useful for all interventions to document each component of the intervention in a detailed manner, while mapping it on to a theoretical framework explaining why these components are thought to drive a change in outcomes. The fact that no two ISS programs are identical may actually be useful, as this heterogeneity of elements will provide opportunities to study variation naturally, helping to uncover which elements are most important in driving positive outcomes. Participants emphasized the potential for embedding rigor in these naturally occurring research opportunities.

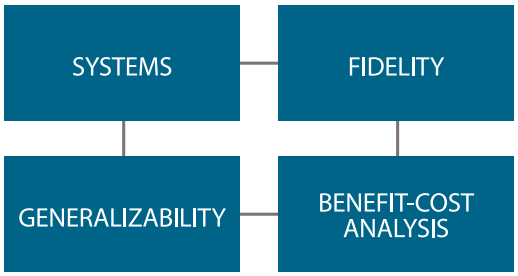
The fact that no two ISS programs are identical can be useful, as this heterogeneity of elements will provide opportunities to study variation naturally, helping to uncover which elements are most important in driving positive outcomes

In addition to documenting these inputs, understanding the *quality* of these ingredients is also crucial. For example, community partnerships are one of the key components in many ISS interventions. How does the quality of that partnership matter? Do students tend to show greater gains in skills if they meet with a partner weekly or biweekly, or if that partner comes to the school to deliver services versus the child being transported to the site of the agency?

Additionally, the degree to which an intervention is integrated within the school varies considerably across programs. In some schools, a staff member is paid full-time to implement the intervention and connect students to services, whereas in other schools, a part-time volunteer may hold this role. In some interventions, services may actually be located within the school campus, such as a community medical center within the school. These differences may have consequences on student and family outcomes. By engaging in the task of better understanding the quality of components in ISS interventions, we may be able to better define what it means to "tailor" student support.

Methodological Considerations

Presentations from professors Diego Luna Bazaldua, Lisa Gennetian, and Pamela Morris introduced key methodological considerations for the evaluation of ISS interventions and their interpretations, and professor Henry Levin offered methodological considerations for economic analysis. A larger conversation with the full group of participants followed, centered on methodological challenges and opportunities. The primary themes of these discussions focused on systems, fidelity of implementation, generalizability, and the utility of research-practice partnerships.



Systems

As described in the prior section of this report, ISS approaches are rooted in systems theories, suggesting that children's development is a result of their interactions with the various environments in which they exist. These environments also influence each other, so that characteristics of the school, home, and community interact to influence the child's trajectory. In keeping with this theory, most ISS interventions seek to intervene in the various contexts where children may face risk factors: the school, home, and community, while also drawing on the strengths of those contexts. Therefore, most interventions have a theory of change that align with systems theory, taking into account the ways that students, their families, school personnel, and the community may impact a student's experience with the intervention, while also considering the impact the intervention has on all of these key figures in a child's life.

For this reason, in-depth, descriptive work that is both qualitative and quantitative is needed to understand each of the components in the system. For example, since two-thirds of the variance in student achievement is due to out-of-school factors,[22] and the family context is significant, more work is needed to understand how the entire family is impacted by an ISS intervention received by the child. Studying the quality and connection of partnerships with schools could also offer insight into how community agencies improve what is happening at school. These complex systems may also be candidates for social network analysis, to uncover which parts of the network are strong and where connections are lacking.

ISS interventions seek to intervene in the various contexts where children may face risk factors: the school, home, and community, while also drawing on the strengths of those contexts

Theory-driven research is a major need, so that appropriate methodologies can be mapped onto research questions rather than vice versa. However, some interventions did not evolve from theoretical underpinnings, but were instead developed in response to immediate needs facing a particular community. These interventions should work to probe the developmental theories that likely inform their models, create a coherent theory of change that acknowledges all aspects of the system, and then elucidate research questions based on these theories and choose methodologies that will best answer the research questions. On the other hand, some qualitative research methods, such as grounded theory, are inductive and exploratory with the goal of developing theory grounded in data drawn from experience and practice. This in-depth qualitative work may offer a unique and important perspective on how interventions function.

ISS approaches may be so complex that experiments testing a single mechanism of change at a time may not be appropriate. However, having a strong theory of change for these models will help researchers to design better

studies that test the effectiveness of implementation, and may help practitioners to more closely tie their efforts to research-based strategies with a likelihood of improving outcomes.

Fidelity

Fidelity of implementation is defined as the extent to which the delivery of an intervention adheres to the original program model as it was developed.[23] It was identified as an important need in intervention work in the 1970s after a number of federally funded community mental health programs yielded poor results, in part because of poor adherence to intervention.[24] Recently, there has been increased attention to the importance of fidelity of implementation.[25] Achievement of high implementation fidelity is crucial to replicating successful results as programs expand. However, fidelity of implementation is difficult to achieve during the scale-up of interventions, particularly when they are based in schools. Challenges include hiring personnel, school and community contexts with varying degrees of resource availability, and the schools' readiness to adopt an innovative program.[26]

The development of fidelity rating systems is crucial to understanding which specific aspects of programs are most important to success and what is the "minimum level of fidelity required for success"

Despite these challenges, the development of fidelity rating systems is crucial to understanding which specific aspects of programs are most important to success. Given the budgetary challenges that constrain most school districts and non-profits, having an understanding of the "minimum level of fidelity required for success" can be useful. Moreover, rigorous studies of the relationship between program fidelity and outcomes may help to identify which aspects of a complex intervention are most important, and which may be extraneous. This knowledge can also assist intervention staff in cultivating professional development around the most crucial aspects of their intervention.

Fidelity studies of ISS interventions may also lead to other important inquiries. For example, if ISS tends to work best in places where it is implemented well, researchers should attempt to understand *why* it was implemented well in those schools in the first place. Context may be a critical ingredient to understanding just what it is about certain schools or communities that allow interventions to be implemented correctly and to work more effectively.

Generalizability

Methodology discussions focused on generalizability of (1) findings on effective practices and (2) results from empirical studies of specific ISS interventions to populations and school districts. Because the quality of the implementation of a program is a key aspect in the promotion of positive changes in children's lives, the conversation surrounding the generalizability of effective practices relates closely to the need for fidelity measurement systems.

To determine a generalizable set of results, future work should include a meta-analysis on ISS approaches. Professor Roisin Corcoran described the foundation of research available in related fields like social-emotional learning, which has allowed for rigorous meta-analyses.[27] At this point, there are likely not enough studies to conduct a rigorous meta-analysis in ISS. However, when more studies on a range of populations are available, a well-implemented meta-analysis may help to confirm trends in the effects of ISS programs on outcomes of interest.[28]
Once robust causal evidence linking ISS interventions to outcomes is established, researchers should also gather evidence to understand how results may be generalizable to new populations and school districts beyond those evaluated in the studies. One potential tool to accomplish this is "The Generalizer," an online platform that guides researchers through the process of designing a sample recruitment plan with generalization in mind before a study begins, and reporting where the results of a study may or may not generalize adequately.[29] For qualitative research, transferability

is synonymous with generalizability, and just as crucial.[30] This may be achieved through thick description (a robust and detailed account of the researcher's experiences during data collection), including any connections to the cultural and social contexts of data collection. This provides evidence to consumers of the research that the findings could be applicable to other contexts and populations.

Understanding how results may be generalized based on the sociodemographic makeup of school districts is crucial, but district and community capacity to provide services must also be taken into account when considering results of ISS evaluations. For this to be possible, future work should analyze the local services available in different types of communities across the country, as well as the types of services that are frequently referred and delivered to children and families. As the population of poor students increases, and their needs remain significant, research that is generalizable is more important than ever.

Benefit-Cost Analyses

Professor Henry Levin discussed the value of cost-effectiveness studies in enabling schools to get the largest educational effect from available resources. He described the ingredients method, an especially rigorous and accurate approach for estimating the return on investment in educational interventions. The method first identifies all resources required to fully implement an intervention, including the cost of personnel, facilities, equipment, and supplies, and includes the cost of all ingredients regardless of who provides the funding for each of them.[31] A 2016 Brookings Institute publication by conference participant Professor Brooks Bowden explained that in the case of benefit-cost analyses of ISS interventions, the cost of community-based services to which students are referred must be included in the overall cost.[32] To accurately compare ISS interventions, all benefit-cost analyses assessing their impact should include costs of the services provided, even if they are not directly borne by the intervention. Only then can policymakers and funders understand the true net financial impact.

Why are Research-Practice Partnerships Important?

Given that ISS approaches are generally integrated within schools, it is important for researchers to develop strong relationships with the teachers, administrators, students, and families connected to the school. Unfortunately, many practitioners feel that the issues addressed by educational researchers are too far removed from everyday practice, and their findings are difficult to apply to specific classroom contexts.[33] A W.T. Grant Foundation report describes research-practice partnerships as "long-term, mutualistic collaborations between practitioners and researchers that are intentionally organized to investigate problems of practice and solutions for improving district outcomes."[34] One critical piece of improving the efficacy of ISS interventions is enhancing the capacity of schools, parents, and community partners to support students' development. If research is to be maximally useful, it should lead to specific, usable knowledge about how to do ISS work well.

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In a trustworthy collaboration, researchers and school practitioners should have mutually beneficial research agendas. Listening to the practice community about the issues they face on a daily basis, and asking about practical limitations that should be considered in developing solutions, helps researchers build trust. This is particularly important, as some school districts are not prone to share student- or school-level data, which is vital for understanding the impact of ISS. Research-practice partnerships are increasing in number, as funders, researchers, and practitioners aim to develop research that can make a difference in schools in a more direct, applicable, and tangible way.[35]

ISS interventions are implemented in varying contexts, and must respond to the diverse needs of children and families within those contexts. Research-practice partnerships are well suited to address this complexity, bringing together the expertise of scholars and the teachers, administrators, and community agency representatives that work with children every day. Additionally, because ISS is firmly grounded in developmental science and an increasing number of outcomes evaluations inform effective practices, researchers can contribute to practitioner knowledge, while practitioners can provide their expertise and knowledge of the students and families in the schools, and the practical problems they face on a daily basis.

Research-practice partnerships aim to develop research that can make a difference in schools in a more direct, applicable, and tangible way

Areas for Action: A Research Agenda

Based on the presentations and discussions, we have distilled the following priorities into an agenda to guide research on integrated student support in the years to come. The conference attendees were given a preliminary draft of this research agenda to provide feedback to us, and the resulting agenda incorporates their suggestions.

Context

Integrated Student Supports occur within a complex set of variables which may differ qualitatively and quantitatively, depending on context.

- **Conditions for success**

  What is the constellation of conditions needed in a school or community for ISS to be successful?

- **Understanding contexts of implementation**

  How do contextual features such as leadership, resources, or relationships influence the implementation of ISS?

Implementation

In-depth research is needed to understand the differences across components in various programs and how they work to improve outcomes.

- **Understanding critical inputs by taking advantage of the heterogeneity across programs**

  How do programs differ in terms of theory of change, quality and type of partners, staff characteristics, population served, etc.?

- **Specifying elements of the core components of ISS, and studying variations in implementation across models for particular elements**

  What does "coordination" mean? What does "integration" into a school mean? What does "individualization" mean in practice? How do we measure what is being implemented?

- **What inputs do students, families, community agencies, teachers, administrators, and coordinators bring to ISS interventions that may shape implementation?**

- **Measuring fidelity of implementation**

  How do we define, observe, and measure fidelity of implementation? What level of fidelity must be met in order to drive results?

Outcomes

To best understand outcomes, researchers should emphasize building research-practice partnerships while doing implementation work, engaging in rapid-cycle studies, and utilizing qualitative and quantitative approaches, rather than placing overemphasis on randomized controlled trials (RTCs). Additionally, researchers should consider both short-term and long-term outcomes that reflect the systemic nature of ISS interventions.

- **Defining expected outcomes and progress indicators**

  What indicators and outcomes are expected in the short-term and long-term?

- **Assessing social-emotional-behavioral outcomes**

  Students must have solid academic and "soft skills." How does ISS impact these social-emotional-behavioral skills?

- **Exploring systemic impacts: understanding impacts on students, families, community agencies, teachers, and administrators, and aligning methodologies with theories of change**

  Developmental theory posits that these relationships are transactional, so what are these various groups bringing to the intervention, and what do they each get out of it? How can we pursue outcomes related to possible systemic effects?

  How are institutional relationships affected by implementation of ISS?

Methodology

As noted above, qualitative, quantitative, and mixed-methods research are all needed. In addition, until the "field" has a larger set of empirical studies to be studied in a meta-analysis, researchers should consider:

- **Taking advantage of natural experiments**

  How can we effectively exploit existing sources of data to answer questions about the impact of integrated student support?

- **Benefit-cost studies**

  What is the value of ISS interventions, particularly when we consider the costs of the services provided by various partners and agencies?

- **Qualitative research**

  How can a variety of qualitative methods be used to assess inputs and outputs, as well as intervening variables?

- **Generalizability**

  How can we design studies that will allow practices to be applicable to a large and diverse population of schools and students?

Other Considerations

A number of other topics need to be considered as the "field" moves forward.

- **Shared language**

  Can we collectively develop shared terminology to use when describing approaches in the field of ISS?

- **Relevance to policy**

  How can we communicate the importance of these research findings more effectively with policymakers?

Conclusion

More research on ISS is needed, and it is needed now. As the achievement gap widens between poor and non-poor students, already overburdened schools are struggling to keep up with properly educating students who come to school with the burden of poverty and its developmental sequelae. Rigorous, descriptive and inferential research on ISS will help to identify the most important elements of ISS so that it can be more easily scaled and made available to all students across the country in an efficient and sustainable manner.

Discussions on the state of extant research revealed that there is promising evidence for the effects of ISS on academic outcomes. However, we still have much to learn about how each component of ISS works on its own, and as part of a comprehensive intervention. Specifically, research should examine the differences in implementation components across various approaches to ISS, and then should seek to understand the processes through which each of these components work to impact student outcomes. Although research on the relationship between ISS and academic outcomes is increasing, more research is needed to understand the relationship between ISS and behavioral-social-emotional outcomes.

Despite randomized controlled trials being viewed by many as the "gold standard" in research, these studies are not always feasible or appropriate for ISS models. Research should continue to use alternative approaches to addressing internal bias, such as those that take advantage of natural experiments. Further, descriptive, mixed-methods work, organized as part of research-practice partnerships, will help to advance our understanding of the mechanisms underlying how ISS approaches impact students, families, teachers, schools, and communities.

Research on ISS is of critical importance, as these approaches have the potential for a strong return on investment, providing both long- and short-term impacts on student and family outcomes, while also providing a cost-effective way to prepare future generations of the American workforce to compete in a rapidly changing economy.

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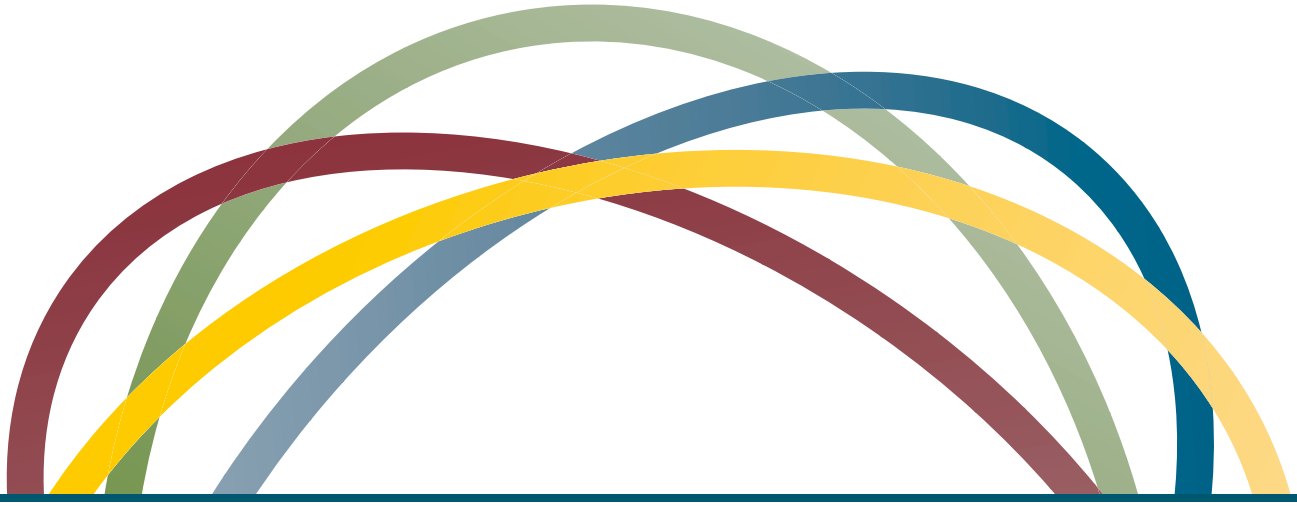

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