

SPARKS WORKING PAPER III

# LINKING RESEARCH TO POLICY TO PRACTICE

COLLABORATIVE RESEARCH FOR EVIDENCE-  
INFORMED POLICYMAKING IN EDUCATION

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# **Linking Research to Policy to Practice:**

## **Collaborative research for evidence-informed policymaking in education**

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### **About the Center for Universal Education**

Founded in 2002, the Center for Universal Education (CUE) is a leading policy center focused on universal quality education and skills development around the world. CUE collaborates closely with networks of international partners to accelerate educational progress and systems change so that all learners—especially the most marginalized—can develop a breadth of skills to thrive in a rapidly changing world.

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## Summary

Since the 1990s, there has been a growing demand for [evidence-based](#) education policy and practice (Connolly et al., 2018). This demand stems from concerns that education systems are not meeting the needs of a changing world and that education research lacks rigor (Hargreaves, 1996; St. Pierre, 2001). While this demand aims to improve the quality of education, silos between different actors often hinder how evidence informs policymaking. We encourage researchers to use a collaborative research [approach](#) by involving multiple [education actors](#) in the research process to close the gaps between research, policy, and practice. Collaborative research approaches promote local ownership, focus on problems important to policymakers and educators, and capture the complexities and purposes unique to each [education ecosystem](#).

This paper is the third in a series of three working papers meant to serve as references and conversation starters for policymakers and researchers as they navigate [pedagogical reform](#) for [education system transformation](#) in their local contexts. Together, the three working papers emphasize the need for more locally driven collaborative research on how the interaction of culture, local education ecosystems, and learning theories—collectively called [Invisible Pedagogical Mindsets](#) —influences teachers’ pedagogical choices in the classroom.

1. **Working Paper I** explores **what** different definitions of “pedagogy” promote, emphasizes the importance of Invisible Pedagogical Mindsets for pedagogical reforms, and sets the stage for Working Papers II and III.
2. **Working Paper II** explains **why** it is important to examine Invisible Pedagogical Mindsets to inform local pedagogical reform agendas. Specifically, it outlines the challenges of a “best practices” approach, as seen with the generalized implementation of student-centered pedagogies.
3. **Working Paper III** details **how** collaborative research methodologies can help ensure education research considers Invisible Pedagogical Mindsets and responds to local contexts.

Primarily intended for education researchers, **Working Paper III** advocates the use of collaborative research approaches to actively include multiple education actors in the research process, foster complementary relationships between actors with different expertise, and make research findings more [relevant](#) and responsive to the local education ecosystem. The paper has three parts that discuss the need for flexible research approaches to inform policy given the complexities of education decision-making, the importance of communication and dissemination, and how collaborative research can bridge the gaps between research, policy, and practice. The paper concludes by looking at the ongoing work of the [SPARKS project](#) at the [Center for Universal Education](#) and how collaborative research can contribute to education systems transformation. [Appendix I](#) provides working definitions of key concepts from the three Working Papers.

## **A. A collaborative research approach embraces the complexity of education decision-making and the variety of research methodologies.**

Over the last several decades, there has been an increasing international call to improve education outcomes by basing decisions about policies, strategies, interventions, and programming on the most reliable evidence generated from rigorous empirical research methods (Steiner-Khamsi, 2013). Using rigorous empirical research as the primary driver for decision-making is referred to as [evidence-based decision-making](#) or evidence-based practice (Connolly et al, 2018; Pring & Thomas, 2004). Many education organizations prioritize evidence from statistical and experimental research, such as regression analysis and randomized controlled trials (RCTs), as the “gold standard” of rigorous research to inform policy decisions, over evidence from other types of research methodologies (Deaton & Cartwright, 2018; Gorard et al., 2020; Parra & Edwards, 2024).

However, education policymaking is a political, ethical, moral, social, and value-based process that involves multiple actors, each with their own goals and competing interests (Cairney, 2016; Nussbaum, 2010). With multiple goals and interests involved, policymakers base their decisions on multiple sources of information. Evidence from research is one of the many factors that influences policymakers’ decisions. The extent to which evidence can influence policy depends on the ability of researchers and other education actors to curate and present the evidence at the right time to the right people (Kingdon, 1995; Zahariadis, 2007).

In this section, we explore the role of evidence in influencing education policy decisions. We discuss why it is impractical and undesirable for education researchers to privilege one type of research as a “gold standard,” outline the various ways policymakers use evidence from research and argue that basing policy decisions on evidence from one type of research is unrealistic.

### *1. Multiple actors in the local education ecosystem are involved in formulating policies.*

Within any education ecosystem, many actors, both inside and outside the formal system, have varying levels of access and influence in the decision-making process. This multiplicity of actors allows the education ecosystem to entertain several policy options simultaneously, some of which might be competing or contradictory (Cairney, 2016). For example, while some education actors may champion a new [structured pedagogical](#) approach, others may promote more [playful learning](#) approaches within the same system.

Decision-making for education policies is not an entirely rational process. Bureaucracy, time constraints, and the diversity of actors make education policymaking a non-linear and complex activity that is more of a balancing act than a rational, linear process. Key decision-makers, including policymakers and teachers, usually do not have the time and luxury to identify all the problems, look at all possible solutions, and then choose the one best policy solution based on evidence from research (Qargha, 2022; Zahariadis, 2007). Their local ecosystems’ various pressing issues pull their attention in many directions. Because of time constraints, policymakers can focus on only a few problems at once (Rochefort et al., 1994). In this situation, with multiple problems and multiple policy solutions, the timing of presenting evidence to the right people is one of the most critical factors in determining its influence on policymaking (Qargha, 2022; Zahariadis, 2017).

Ultimately, policymakers balance the political, ideological, and pragmatic implications of their decisions with the evidence from research, to make the best decision given their time and bureaucratic constraints (Cohen et al., 1972; Qargha & Morris, 2023). Often, this balancing act means compromising between competing policy options to address the multiple demands rather than seeking comprehensive evidence to choose one technically “optimal” solution (Barbalet, 2009; Olsen, 2023; Simon, 1997).

## *2. Privileging one type of evidence for decision-making ignores the complexity of education ecosystems.*

The desire to base education policies on the best available evidence often resulted in privileging quantitative statistical research and program evaluation studies that use statistical methods and randomized controlled trials as the “gold standard.” As discussed previously, education policymaking takes place in an interconnected and multifaceted environment with increasingly complex policy problems for which there is no single policy solution. Complexity is inherent to a healthy education system. The nature of education decision-making is innately tied to multiple goals, actors, and purposes of education in society (Ingold & Monaghan, 2016; Nussbaum, 2010; Wu, 2014).

Much of the writing about evidence-based education policy and practice, especially in education development spaces, either ignores or eliminates this complexity, particularly the politics and multiplicity of goals in public policy decision-making. For example, Davies (1999) writes that the education “agenda is often driven by political ideology, conventional wisdom, folklore, and wishful thinking as it strives to meet the needs and interests of the economy, business, employers, law and order, civil society, parental choice, and, at least rhetorically, the children, young people, and adults who make up the learning community” (p. 108). He argues that this multiplicity of desires is a “triumph of hope over reason, sentiment over demonstrated effectiveness, intuition over evidence.” However, policymakers must balance their goals and interests with evidence from research to make decisions.

To eliminate complexity from education decision-making, certain members of the international education development community have pushed to make education policymaking mimic medical research, even if it means “kicking and screaming” (Slavin, 2002, p. 16). This is often done by using research approaches from the hard sciences, such as experimentation and causal studies, for the social sciences (Klees, 2021, 2017; Pirrie, 2001). The end goal is often to use this evidence to identify best practices, “what works,” and “best buy” models that can then be replicated, transferred, and scaled (Ingold & Monaghan, 2016; Parra & Edwards, 2024).

Privileging one type of research as the “gold standard” is technically problematic as well as disconnected from the reality of how research evidence is used in the education policy environment. Although there is an allure to find “best practices” that policymakers can simply mandate for their local context, both determining and also measuring the quality of education are context dependent (Steiner-Khamsi, 2013). Please refer to **Working Paper II** for a detailed discussion of why promoting “best practices” in education is problematic. Furthermore, for a full discussion about the limitations of statistical correlational research for education policymaking, refer to Wu (2014), and for a discussion of the pitfalls of using randomized controlled trials as the gold standard, refer to Parra and Edwards (2024).

### *3. Policymakers use multiple sources of information in a variety of ways to make decisions.*

Evidence from research comes in many shapes and forms. Therefore, a crucial part of policymakers' decision-making process is deciding what types of evidence to consider for their policy decisions.

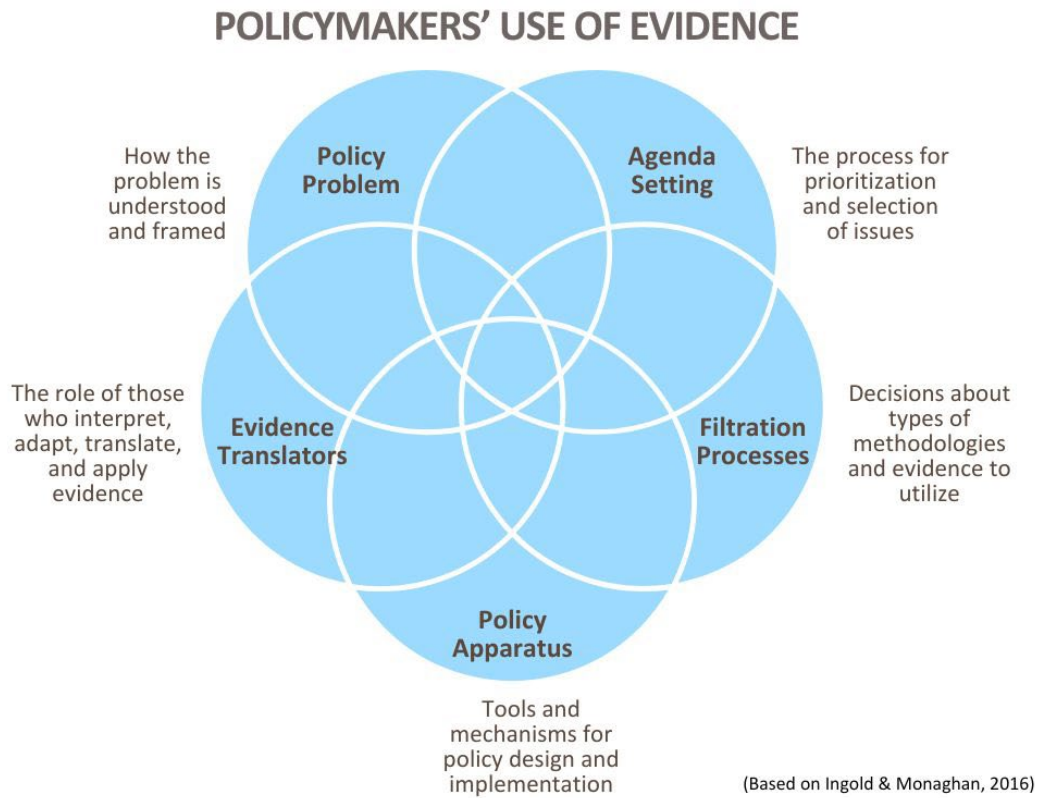
The literature identifies at least three ways that policymakers use evidence to inform their policymaking decisions:

1. The most direct use of evidence in the policy environment—usually termed **instrumental, procedural, or problem-focused use of evidence**—is to solve a specific problem or shape specific policy decisions. Most of the discussion on evidence-based decision-making assumes a linear and direct link between evidence production and policymaking. Although policymakers can and do use evidence from research in this way, this is not always the case.
2. Policymakers also use evidence to understand the general issues around a policy option, often termed **conceptual, intellectual, or general knowledge-driven use of evidence**. Unlike the instrumental use, this use of evidence does not directly impact a specific policy problem. However, the accumulation of multiple forms of evidence helps shape the policymaker's worldview.
3. With the **symbolic or political use of evidence**, policymakers tactically use evidence to validate and promote their existing positions, ideological preferences, or previously made decisions and to delay action or counter policy positions they do not favor.

For more detailed information about the different ways policymakers use evidence from research, refer to [Appendix II](#) (Henig 2008, 2009; Luke & Hogan, 2006; Ness, 2010; Weiss, 1979).

In addition to the different ways that policymakers use evidence as detailed above, Ingold & Monaghan (2016) describe five dimensions that influence the selective use of evidence in policymaking. These dimensions include how the policy issue is understood and framed by policymakers (policy problem), the process by which issues are prioritized and selected for attention within the policymaking arena (agenda setting), mechanisms through which evidence is sifted and selected based on organizational structures and preferences for specific methodologies (filtration processes), the tools and mechanisms used for policy design and implementation, such as legislation (policy apparatus), and the individuals, groups, or organizations that interpret, adapt, and apply evidence within the policymaking process (evidence translators). Together, these dimensions highlight a dynamic process where evidence undergoes interpretation, adaptation, and negotiation among various actors in the policy environment (See **Figure 1**).

**Figure I: Policymakers' Use of Evidence**



There is no such thing as context-free research or evidence (Pirrie, 2001). Often, findings are inconclusive, researchers disagree on how to measure program effectiveness, and it is unclear whether an education program will have the same results across contexts. Policymakers often choose between competing evidence to inform their decision-making (Klees, 2017; Lubienski et al., 2009). We advise education actors to view evidence from research as a tool to skillfully curate and use based on each education ecosystem's unique environment, challenges, and goals.

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*“Who decides ‘what works,’ what to measure, how to measure it, and in the case of conflicting evidence—whom to believe?”  
(Lubienski et al., 2009).*

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4. *The terms “evidence-informed” or “evidence-inspired” better capture the complexity of decision-making in education ecosystems.*

While much of the literature on the use of evidence in education decision-making discusses evidence-based policy, we prefer terms such as “[evidence-informed](#)” or “evidence-inspired” (Ingold & Monaghan, 2016). These terms better reflect the actual policymaking environment and the multiple factors that influence decisions.

Discussions about the type of evidence most useful for policy formulation have become reductionist. Oftentimes, the “evidence-based” rhetoric over-emphasizes the validity and superiority of the evidence generated from experimental, correlational, and causal comparative studies, and undervalues—or ignores—evidence from research such as qualitative, historical analysis, or other types of knowing (Kumah et al., 2019; McSherry, 2007). Privileging one type of research as superior in all cases often stems from seeing only one purpose of education and one form of evidence as legitimate (Qargha & Morris, 2023; Parra & Edwards, 2024).

While evidence from research is a critical factor for improving education programming and an integral part of education decision-making, it is not the sole driver for policy decisions. Policymakers base decisions on multiple factors, including political, ideological, and pragmatic preferences, in addition to evidence from research. Policymakers and researchers must collaboratively determine the type of evidence most useful to inform policy in their specific contexts.

In Section B, we discuss the importance of effective communication between actors, including in the dissemination of research and evidence, to foster better links between researchers, policymakers, and practitioners.

## **B. Collaborative research requires effective communication and dissemination to bridge the gaps between research, policy, and practice.**

Communication deals with how the message of research is conveyed between actors, while dissemination refers to the mechanisms and channels for distributing evidence and research. Policymakers generally prefer research relevant to their specific contexts (Hunter, 2009; Jewel & Bero, 2008). Unlike physical sciences research, which seeks universal laws in controlled environments, education research must consider the interaction of culture, local education ecosystems, and learning theories. Collaborative research ensures ongoing communication between different education actors, which contributes to the production of more relevant evidence for the local context.

Researchers, policymakers, and educators often operate independently within their communities, with distinct languages, values, norms, and goals (Snow, 1961). Policymakers are more likely to use evidence in their decision-making if they are part of the research process and understand the source and origin of the evidence (Nakajima, 2021). Research teams must consider ways to improve their communication and dissemination strategies to create greater connections between researchers, policymakers, and educators (Ion et al., 2019). Without effective links for communication and dissemination, it is unlikely that research findings will be translated into policy or practice.

In the following section, we highlight the importance of moving beyond the conventional pathways for communicating and disseminating research and encourage education actors to utilize a collaborative research approach and creative pathways, including emerging technology, to communicate and share research findings.

*1. Creative pathways for disseminating research can help bridge the gap between policy and practice.*

There is often a disconnect between the traditional pathways for disseminating research, like academic journals, and how policymakers use evidence. Most scholarly journals are in English and come from countries like the United States and the United Kingdom. Because these journals are prestigious, researchers feel pressure to produce research that meets academic expectations by producing generalizable research that focuses on broader global trends across contexts, even if it may not be relevant to policymakers (Lariviere & Warren, 2019). However, research inspired by international research agendas can counteract the need for locally based evidence relevant to specific contexts and education ecosystems.

To move beyond traditional pathways for dissemination, researchers must think about ways to present research that are relevant and easy for policymakers to understand. Ashcraft et al. (2020) explain how the source, message, audience, and channel are crucial for the successful dissemination of research. This model, as shown in **Table 1** below, emphasizes the importance of not only the evidence generated but also the channels used to reach the target audience and the message being conveyed. We encourage researchers to consider how the source, message, audience, and channel may affect the reception of evidence by different policymakers.

**Table 1:** Model of Dissemination of Research (Ashcraft et al., 2020)

<b>Source</b>	Researchers who generate evidence
<b>Message</b>	Relevant information sent by the source on a policy topic
<b>Audience</b>	Those receiving the message
<b>Channel</b>	How the message gets from the source to the audience

Innovative modes of research dissemination have emerged to communicate evidence to various audiences. For example, social media and technology have changed the landscape of how information is disseminated, which we discuss below. Additionally, blogs, wikis, open-source websites, and broadcasting platforms like TEDx can be spaces for users to interact with research findings in less traditional ways (Ross-Hellauer et al., 2020). Regardless of the channel, researchers need to consider potential target audiences and their preferences for communication. Another important aspect of dissemination is participation of the target audiences, to encourage engagement, feedback, and involvement from those who ultimately use the findings (Ross-Hellauer et al., 2020).

## *2. Clear communication is essential to ensure that research benefits and is relevant for all education actors.*

Policymakers and researchers often have differing expectations about the research produced and its intended use. Challenges that create a gap between research and policy include lack of communication, untimely or irrelevant research, mutual mistrust, poor quality research, inconclusive or conflicting findings, and political instability or turnover (Lee & Belohlav, 2014). Researchers tend to focus on broader theoretical themes and abstract ideas, while policymakers seek relevant, concrete solutions to immediate policy issues in their local contexts (Henig, 2008).

Numerous studies emphasize that for policymakers to use research evidence for their decision-making, the research has to be relevant to their pressing problems. For example, Nelson et al. (2009) found that policymakers prioritize research related to their local context for informing policy decisions. Similarly, Nakajima (2021) found that in the absence of local research, policymakers prefer studies conducted in similar contexts or settings similar to their jurisdictions.

Researchers must also consider the relevance and timeliness of their work. They should account for policymakers' time constraints, focus on specific local issues, and establish mechanisms to ensure that research priorities are mutually important. Additionally, it is crucial that the evidence produced is relevant and that research findings are communicated and disseminated effectively to all education actors.

## *3. Technology can create pathways for more effective and efficient dissemination of evidence.*

The advancement of technology has brought both opportunities and challenges in communicating and disseminating research (Klar et al., 2020). For instance, social media provides wider access to information but also allows a flood of competing information, which makes it difficult to decipher the validity and reliability of information (Lubienski et al., 2014; Steiner-Khamsi, 2022).

Klar et al. (2020) found that promoting research on Twitter correlated with more citations, suggesting that social media is effective for actively “pushing out” research rather than relying on it to be found by searching academic journals. On social media, researchers can share snippets of their work, link to full papers, tag interested individuals, and use hashtags to join broader conversations and reach wider audiences (Irwin et al., 2022). A report by the Institute of Education Sciences found that over half of practitioners consume research via social media (Sykes et al., 2022). Beyond direct dissemination, social media can also connect researchers with policymakers and other education actors, facilitating networking and knowledge-sharing.

Although relatively new and not always accurate, AI holds significant potential for data analysis and research dissemination. Emerging research shows that AI can analyze user trends for targeted evidence dissemination, improve audience perception, reduce information asymmetry, and enhance engagement (Xifeng & Han, 2022). Additionally, policymakers can use AI to gather information from multiple sources more efficiently than traditional methods of evidence compilation. AI can also help identify the needs of different audiences and personalize dissemination for specific purposes and policy needs.

In the next section, we highlight the promise of collaborative research as a mechanism for producing and disseminating locally relevant evidence. We propose a collaborative research approach to involve policymakers and education actors in the research process and to better connect evidence with policy.

### **C. Collaborative research approaches can promote locally relevant research that responds to the needs of local education ecosystems.**

The international education development community is increasingly interested in exploring the potential of collaborative research among different education actors to bridge the gaps between research, policy, and practice. Within the past two decades, many universities have shown interest in forming research collaborations with external organizations or individuals (Franken et al., 2019; Niks, 2006). Similarly, many funding organizations have supported collaborative research approaches, mainly in higher income contexts, to ensure that policy informs research as much as research informs policy (Coburn et al., 2013; Tseng et al., 2022)

Despite increased interest and funding for collaboration, there are often silos between researchers and the broader community (Niks, 2006), especially in international development spaces. Collaborative approaches to international education development research can help bridge the gaps between research, policy, and practice and inform the opportunities and challenges of these approaches for education transformation in local contexts.

In this section, we discuss what a collaborative research approach entails and how it can foster relationships among education actors and contribute to a locally relevant evidence base.

#### *1. Collaborative research brings education actors together to decide on local research priorities.*

Collaborative research involves intentionally bringing together researchers, policymakers, practitioners, and other education actors with different expertise to study real-world problems in a mutually beneficial working relationship. The literature describes many principles that are essential for collaborative research. Firstly, collaborative research usually entails an intentional, ongoing, mutually beneficial working relationship between two or more education actors focused on a problem relevant to all actors (Coburn et al., 2013; Washington, 2004). Another important principle of collaborative research is integrating collaboration through each step of the research process. Collaborative research does not just involve the research design but all phases of the research process, including deciding on methodologies and analyzing data.

Collaborative research also values local knowledge and local ownership of research. For example, when designing an interview protocol, there is a difference between choosing questions based on what the researcher wants to know and what policymakers, practitioners, or other members of the collaborative believe is meaningful for their immediate local needs (McArdle, 2020). This nuance in collaborative research is that of conducting research *with* participants rather than *about* participants (Washington,

2004). Barker et al. (2023), in their collaborative research manifesto, describe this as one of the ethical commitments of collaborative epistemology—the need to “change the paradigm of conventional information extraction from marginalized or volatile communities for scholarly benefit and instead engage people as actors with agency rather than solely objects of research” (11).

## *2. Collaborative research builds on many existing research methodologies.*

Collaborative research draws upon existing research traditions, including action research, participatory-action research (PAR), program evaluation, and knowledge-utilization literature. While collaborative research shares similarities with these traditions, it stands out for its ability to combine elements of all these traditions and focus on multiple aspects of policy and practice simultaneously. Collaborative research requires the participation of various education actors across the education ecosystem, including those not directly involved in the intervention nor part of the organization, for a systematic, long-term relationship mutually beneficial to all participating actors (Argyris et al., 1985; Denis & Lomas, 2003; Elliott, 1991; Lilford et al., 2003). Below, we highlight some of the similarities and differences between collaborative research and the methodologies it builds from.

Both collaborative research and action research have the common goal of improving education systems and involving practitioners in the research process. However, there are differences between the two approaches. Action research is usually led by one or more practitioners, such as teachers, who use a reflective process to conduct research in their own settings to improve their individual practices. While some members of collaborative research might be practitioners, collaborative research also involves other education actors, such as researchers, policymakers, educators, and others. The goal is to integrate insights from all education actors to ensure that the research informs broader, systematic changes in policy or practice and make evidence more useful for all involved parties.

Collaborative research and PAR both challenge the exclusive academic notions of reliable and valid research, emphasize the importance of local knowledge, require respect for all involved in the research process, and promote local ownership of research processes (Franken et al., 2019; Galletta & Torre, 2019). However, PAR usually tries to remove the distinction between researchers and non-researchers by prioritizing the expertise and perspectives from lived experience and situated knowledge. Collaborative research approaches, similar to evaluation and knowledge utilization traditions, maintain the distinctions between researchers and non-researchers but try to co-create spaces that draw upon the expertise of each education actor in a complementary manner towards a mutual goal (Denis & Lomas, 2003; Huberman, 1994; Jason, 2006; McArdle, 2020).

### Recent Collaborative Research Efforts in Education

The recent work of the Center for Universal Education at the Brookings Institution has explored collaborative models of engagement and research with partners from around the world. For example, the [KDNLC project](#) (The Knowing-Doing Network Leadership Coalition), which was launched in 2023, brings together 10 civil society organizations to work together to research and understand how education system transformation occurs in local education ecosystems. [William T Grant Foundation](#) has also been a leading advocate of collaborative research models, with a focus on reducing inequality in youth outcomes (William T. Grant Foundation). Additionally, the [Hewlett Foundation](#) supported the creation of a design team that includes [the National Network of Education Research-Practice Partnerships](#) (NNERPP), [The National Center for Research in Policy and Practice \(NCRPP\)](#), [California Education Partners](#), Stanford University, and University of Colorado Boulder, where members collectively explore how to promote and engage others in collaborative research (The Collaborative Education Research Collective, 2023). More recently, the [Spencer Foundation](#) launched a collaborative-research-focused program that promotes collaborative research on the processes, practices, routines, and policies that improve education for learners, educators, families, communities, and institutions (Spencer Foundation).

### *3. Collaborative research fosters trust, joint ownership, and a complementary relationship amongst education actors.*

A successful collaborative research approach fosters a reciprocal relationship characterized by trust, mutual respect for expertise, and joint ownership of the research process. Collaboration extends beyond mere cooperation, resource sharing, and partnerships based solely on funding or access to research sites; it involves an inclusive thought partnership where multiple education actors contribute opinions, insights, and solutions toward a common goal (Denis & Lomas, 2003; O’Sullivan et al., 2010).

A collaborative research approach ensures that research questions and methodologies are more responsive to community needs, accurately capture community nuances, and increase the likelihood that policymakers and practitioners will implement the research findings (Coburn et al., 2013; Denis & Lomas, 2003; Jason, 2006). Additionally, collaborative research prioritizes local needs, incorporates multiple perspectives, and encourages interdisciplinary and contextual analysis. In many cases, teachers—who are at the core of any pedagogical reform—feel excluded from the policymaking process. Collaborative research allows teachers and other education actors to contribute to the local evidence base (Christianakis, 2010).

Transforming education is complex and challenging because it involves incomplete, contradictory, and evolving requirements within each education ecosystem with multiple actors with differing perspectives and values (Rittel & Webber, 1973; Szostak, 2021). Traditional linear approaches to policymaking often fail to address these complexities. By bringing together individuals with diverse strengths and skill sets and promoting active engagement, dialogue, and debate amongst education actors, a collaborative research approach can generate creative solutions and help tackle the complexity of education transformation (Franken et al., 2019; Head, 2022; Ritchey, 2013).

## Looking Forward

Recently, many efforts in the international education development space have applied collaborative work models in research, grantmaking, and program design. Research Practice Partnerships (RPPs), also known as Research-Practice-Policy Partnerships (R3P), are formal collaborative research approaches that address practice, policy, and theory development (Cooper et al., 2020). The National Network of Education Research-Practice Partnerships defines RPPs as “long-term, mutually beneficial, formalized collaborations between education researchers and practitioners” (NNERPP, nd). RPPs involve long-term commitments that extend beyond a single research study. An effective RPP requires sustained commitment from its members to address multiple issues within an education ecosystem (Coburn & Penuel, 2016). RPPs aim to bridge the gaps between research, policy, and practice by ensuring that the research benefits practitioners, policymakers, and researchers. Trust and rapport among the various education actors in the RPP are crucial for its success.

Collaborative research approaches, such as RPPs, are relatively new and have been implemented with varying levels of success, mainly in higher income contexts (Johansson, 2018). A review by Cooper et al. (2020) of 80 studies on RPP networks found that collaboration between researchers, practitioners, and policymakers enhances the relevance of research evidence and better addresses the complex, multi-level challenges education ecosystems face. However, while the RPP model shows promise for addressing the complexities of education transformation, there is a need to better understand what makes these collaborations successful and how to adapt and improve these models in international education development contexts.

Drawing from the RPP model and other collaborative research approaches, the [SPARKS](#) (Strengthening Pedagogical Approaches for Relevant Knowledge and Skills) project at the [Brookings Institution Center for Universal Education](#) launched three [Research Policy Collaboratives](#) in Egypt, India, and Mexico. The SPARKS Research Policy Collaboratives explore the impact of culture, local education ecosystems, and learning theories on teachers’ pedagogical choices in each site and seek to better understand the feasibility, processes, and adaptations of collaborative approaches in international education development spaces. Each Research Policy Collaborative includes the Brookings research team, a local research team from the respective country, and [community collaborators](#) involved in the local education ecosystem. These members guide the research process and participate in discussions about research questions, design, methodologies, findings, and best practices for dissemination.

Through SPARKS, it is our hope that we can learn more about the success factors and challenges of creating mutually beneficial, trusting, collaborative research models that can be sustainable hubs for local evidence creation for education policymaking.



## Appendix I: Working Definitions of Key Concepts

**Approach:** This term refers to the way teachers implement pedagogies in the classroom. A pedagogical approach is how they impart a certain pedagogy in practice. This term can also refer to the way in which someone conducts research.

**Behaviorism:** Behaviorism is a learning theory based on the premise that behaviors are learned or acquired through positive or negative reinforcement or different types of conditioning in the environment.

**Breadth of Skills:** A breadth of skills includes not just foundational literacy and numeracy but also socioemotional skills and other skills, attitudes, characteristics, and knowledge children need to thrive.

**Chalk and Talk:** “Chalk and talk” approaches generally refer to traditional teacher-centered pedagogical approaches where teachers rely on a chalkboard and lecture-style classes.

**Community Collaborators:** This term encompasses the multiple actors from the community involved in the SPARKS Research Policy Collaboratives that assist the local Facilitating Partner in the research process.

**Competency-Based:** In contrast to an objective-based education system, a competency-based system generally has a curriculum where success is measured based on whether students master certain competencies or skills. Generally, competency-based education systems utilize formative assessments to evaluate student progress and encourage individualized learning progressions for students.

**Constructivism:** Constructivism is an education theory that emphasizes the active role of learners in constructing their understanding and knowledge of the world. In a constructivist framework, learners are seen as active participants in the learning process rather than passive recipients of information. They construct knowledge through experiences, reflection, and interaction with others.

**Education Actors:** This term encompasses the multiple actors involved in the local education ecosystem including policymakers, academics, teachers, students, journalists, donors, civil society organizations and other relevant community members.

**Education Ecosystem:** This term refers to education policies, curriculum, assessments, allocated instruction time, classroom sizes, and formal, informal, and non-formal local education outlets.

**Education Technology (EdTech):** This term refers to the intersection between technology and education and the practice of using technology to facilitate learning.

**Education System Transformation:** This term refers to the fundamental transformation of education systems which encourages reflection and reassessment of the goals and purposes of education in specific contexts to ensure alignment in a constantly changing and modernizing world.

**Evidence-based decision-making:** This term refers to an approach to decision-making where policymakers primarily base decisions on available evidence derived from rigorous, empirical research methods.

**Evidence-informed decision-making:** This term refers to an approach to decision-making where policymakers’ decisions are informed by but not solely based on research evidence.



**Innovative Pedagogies:** This term refers to pedagogical approaches that are new to teachers and aim to significantly improve learning outcomes by creating transformative shifts in teaching and learning.

**Invisible Pedagogical Mindsets:** This term refers to the complex and multifaceted non-observable elements that influence pedagogical approaches and in turn are influenced by culture, local education ecosystems, and learning theories.

**Leapfrogging:** This term refers to the creation of transformative rather than incremental shifts to harness the power of innovation and improve learning.

**Mechanism:** This term refers to a way of doing something or achieving a goal. In this sense, a mechanism for implementing innovative pedagogies is the vehicle or process through which a pedagogical reform is implemented.

**Objective-Based:** Also referred to as “outcome-based,” an objective-based education system has a curriculum or approach organized around achieving specific learning outcomes.

**Pedagogical Reform:** This term refers to policies or efforts that change existing pedagogical approaches in the classroom.

**Pedagogy:** We define “pedagogy” as the interaction of culture, local education ecosystems, and learning theories that shape how teachers teach and students learn.

**Relevant:** This term refers to pedagogical approaches applicable to a specific context.

**Scripted Lesson Plans (SLPs):** Scripted lesson plans are an instructional approach in which teachers follow pre-written scripts or detailed lesson plans during teaching sessions.

**Structured Pedagogy:** This term refers to pedagogical approaches that are organized, systematic, and planned. Structured pedagogy emphasizes the importance of clear instruction, explicit teaching methods, and the use of instructional materials. Examples include breaking down learning objectives into smaller, manageable steps, sequencing learning activities in a logical order, and providing scaffolding and support to learners as they progress.

**Student-Centered Pedagogy:** Despite varying definitions of student-centered pedagogies, most scholars agree on four central themes: active participation, relevant content, respectful classroom environments, and formative assessment. The student is central in the learning process.

**Teacher-Centered Pedagogy:** This term refers to an instructional approach in which the teacher plays a central role in the learning process. In this approach, the teacher serves as the primary source of knowledge and directs the flow of instruction.

**Traveling Policies:** This term refers to policies that originated in the West and have been adopted by education actors in other localities.

**21<sup>st</sup> Century Skills:** This term refers to skills identified as required for success in the 21st century, including critical thinking and problem solving, creativity, and collaboration.

## Appendix II: How is evidence utilized?

<u>Luke &amp; Hogan (2006) – Research Uses</u>	<u>Ness (2010) – Types of Research Utilization</u>	<u>Henig (2008, 2009) – Types of Research Utilization</u>	<u>Weiss (1979) - Meanings of Research Utilization</u>
<b>Instrumental use:</b> Research that shapes policy or practice decisions	<b>Knowledge driven:</b> Findings of basic research are applied to policy-relevant problems	<b>Instrumental use:</b> Direct application of research to specific policy decisions	<b>Knowledge-Driven Model:</b> As a result of research, new applications are developed, which contribute to new policies
<b>Conceptual use:</b> Research that shapes the worldview of problems and solutions	<b>Problem-solving:</b> Research helps policymakers solve a specific problem	<b>Conceptual Use:</b> Broader, long-term role that research can have on policymakers’ understanding of a certain policy issue	<b>Problem-Solving Model:</b> Research serves as evidence to help solve a pressing policy problem
<b>Symbolic use:</b> Research that validates prior held positions, preferences, or decisions	<b>Interactive:</b> Policymakers consider multiple sources of information, including their own experience, to support the decision-making process	<b>Political Use:</b> Tactical or symbolic use of information by policymakers	<b>Interactive Model:</b> Research and information come from various sources and people involved in the issue, who together pool understanding and evidence to make sense of a problem
<b>Process use:</b> Incorporating research processes in practitioners’ work	<b>Political:</b> Policymakers seek information to bolster support for a previously determined decision		<b>Political Model:</b> Research as ammunition to support specific political views.
	<b>Tactical:</b> Research is used as a strategy, often to delay action		<b>Tactical Model:</b> Research or the idea of research is used as a tactic for explaining delay in action or as proof of ongoing work on an issue
	<b>Enlightenment:</b> The accumulation of research gradually leads to		<b>Enlightenment Model:</b> Beyond the findings or studies that emerge from research, enlightenment

	enlightenment over time		considers the overarching concepts and theories that can affect policy
	<b>Intellectual Enterprise:</b> Policy research is one of the many forms of research that may be of interest based on wide social concerns		

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