LEARNING POINT Associates®

Is the Supply in Demand?

Exploring How, When, and Why Teachers Use Research

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Abstract

The aim of this paper is to explore the demand side of the market for educational research. That is, what types of educational research do teachers find useful for advancing their instructional practice and under what conditions do they access the research currently available?

Although teachers have mixed opinions—both positive and negative—of research, teachers are by no means categorically disinclined to using educational research to improve their practice. In fact, teachers are particularly inclined to seek out research when they have an immediate pressing concern, and their demand is greatest for research provided via the Internet, through trusted colleagues, by credible researchers, and in educational contexts similar to their own. However, their views of what constitutes "credible" research tend to differ from those of professional researchers. Teachers include among their criteria for credibility research that is relevant and applicable to their own classroom context. More generally, perceived gaps between researchers and practitioners lead to issues with the content, presentation, and dissemination of educational research that limit teachers' demand for it. In a profession where time is at a premium, teachers are unlikely to prioritize research that does not take into account their needs and preferences. Ensuring an appropriate match between what teachers want and what researchers supply requires that certain changes occur within the academic, policy, and practitioner communities. By advancing the education community in this way, students will benefit from teaching that is both high quality and research-based.

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Introduction

In the words of Abraham Lincoln, "Upon the subject of education, not presuming to dictate any plan or system respecting it, I can only say that I view it as the most important subject which we as a people can be engaged in" (Lincoln's Address to the People of Sangamon County, as included in Nicolay & Hay, 1894, p. 8).

The educational research community has been highly engaged for many years on this subject of education, and it is likely that, as with Lincoln, they find it of crucial importance. The volume of literature housed in the Education Resources Information Center (ERIC) database now exceeds one million articles, many written with the intent to improve education. What links the vast community of educational researchers is "a deep concern with the condition of children and schools … [and] Research is often evaluated in part in terms of whether it contributes to improving these conditions" (Gardner, 2002, p.72).

However, despite the large volume of educational research, evaluations of the field have sometimes criticized its quality as neither useful nor influential (Shaver, 1982; Burkhardt and Schoenfeld, 2003), or even awful (Kaestle, 1993). Some researchers note that educational researchers may not be adequately prepared to disseminate research to practitioners in ways that are useful (Schoenfeld, 2009). To the extent that educational research falls short of what it might be, the views of suppliers and consumers of research ought to be ascertained to find avenues for improvement. This exploratory study gauges the views of teachers, as consumers of educational research, in order to further understanding of how the field might develop to be more useful and influential in advancing their instructional practice.

Of course, not all educational research is, or should be, intended to improve teachers' effectiveness. Some research is geared toward policymakers, while other research aims to contribute to knowledge for the sake of knowledge. However, given that the improvement of student learning motivates much educational research, it is problematic that very little research has addressed the demand side of the market for educational research, particularly in the United States. According to Porter (2007), this dearth of relevant research leaves questions about whether teachers look for research-based solutions or even view research as a useful source of information unanswered.

In contrast, researchers at the British and European Education Associations have addressed this topic more extensively (Cordingley, 2000; Beycioglu & Ozer, 2008). The most detailed research on the topic was conducted by Hemsley-Brown and Sharp (2003). Their cross-national review of research on this topic in multiple English-speaking countries over the period 1988-2001 revealed that there were indeed barriers to teachers' use of educational research, including lack of access to academic journals, the daunting amount of research, jargon and overly theoretical orientations, and distrust of the findings.

Although the research on this topic in the United States is sparse, some efforts have been made to improve the usefulness of educational research. In particular, the Institute of Education Sciences *Doing What Works* website (see http://dww.ed.gov), launched in November 2007, aims to provide user-friendly, online access to key findings from high-quality educational research, specifically

about teaching and learning topics. In order to reverse the troubled history of educational research (Lagemann, 2002), both its content and dissemination must be examined critically.

This exploratory study begins that critical examination by considering the extent to which the large body of educational research is in fact useful to teachers who are looking to improve their instructional practice and how educational research might be made more appealing to teachers. In other words, is there a demand by teachers for research, and, if so, what, if anything, can the producers of research at universities and elsewhere do to ensure that what they are supplying meets this demand.

In order to advance our understanding of this issue, researchers at Learning Point Associates conducted nine focus groups with a total of 49 teachers from urban and suburban schools within the Chicago Metropolitan Area. Teachers were asked about:

- Whether they seek out research and why or why not
- What comes to mind when they hear the word "research" in an education context
- What sources of research they rely on and how they judge its credibility
- What barriers prevent them from using educational research
- What type of research is useful and what would make using research more appealing
- What type of preparation for using research they have received

It is hoped that the findings of this study will lead to a more efficient and effective use of resources that fund educational research and its dissemination by taking into account the practitioner perspective. The goal is to remedy the current state of affairs described aptly by one study participant who characterized the operation of academics as being in one "bubble," teachers in another, "and never the two will meet."

Methods

Data for this exploratory study were collected through nine one-hour focus groups with teachers across the Chicago metropolitan area. The focus group approach is ideal for exploratory studies such as this, as it allows for multiple perspectives to emerge while also facilitating consensus building regarding key themes and issues. Through the sharing of ideas, focus group participants are encouraged to consider additional angles and perspectives beyond their initial reactions to the guiding questions.

A total of 49 individuals from elementary/middle schools and high schools participated in the focus groups. In order to capture the views and practices of teachers, selection efforts were focused on teachers in relatively successful schools. To be invited to participate in the focus groups, teachers needed to be working at schools where 60 percent or more of the students meet or exceed adequate yearly progress (AYP). The percent of students in the selected districts meeting or exceeding AYP standards ranges from 60 percent to 88 percent. Both urban and suburban schools were sampled, representing a wide socioeconomic range. The details of participation are presented in Table 1.

Table 1. District and School Sample

School/District	Number of Teachers	Range in Years of Teaching Experience	Percent Students Meeting/ Exceeding AYP	Percent Students Low Income	Date of Focus Group
Suburban Elementary School District #1	7	8–27 years of experience	87.6%	13.2%	10/22/08
Urban Elementary School #1	5	0–1 years of experience	76.8%	93.3%	11/19/08
Urban Elementary School #2	6	4–6 years of experience	62.2%	97.1%	11/20/08
Suburban High School	3	25–30 years of experience	87.6%	2.1%	12/11/08
Urban High School	5	4–7 years of experience	61.6%	43.4%	12/8/08
Suburban Elementary School District #2	8	3–6 years of experience	59.5%*	92.8%	1/12/09
Suburban Elementary School District #3	6	3–5 years of experience	68.0%	70.0%	12/10/08

Suburban Elementary School District #4	5	0–15 years of experience	82.9%	26.4%	11/13/08
Suburban Elementary School District #5	4	3–7 years of experience	62.0%	76.1%	1/6/09

Source: Interactive Illinois Report Card (2008).

Three to eight teachers participated in each focus group. Because experience level might affect the extent to which teachers use educational research, every attempt was made to place teachers in groups with participants of similar levels of experience. There was one focus group of new teachers (0 to 1 years of experience); two focus groups of very experienced teachers (one with teachers having a range of 8 to 27 years of experience and one with teachers with 25 to 30 years of experience, including a department chair); one focus group with a large range of experience levels (0 to 15 years of experience); and five focus groups with early- and midcareer teachers (3 to 7 years of experience). In total, the study included 6 teachers with 0 to 1 year of experience; 32 teachers with 2 to 7 years of experience; and 11 teachers with 8 or more years of experience.

The focus group sessions took place at schools and district offices between October 12, 2008, and January 12, 2009, before or after school and, in one case, at lunchtime.

A small incentive was offered all participants. In addition to providing food and beverage during each focus group session, each participant received a $10 Amazon gift card, followed by a raffle for an additional $25 Amazon gift card. In some cases, district or school coordinators made teachers aware of these incentives ahead of time; in other cases they did not.

Teachers were selected in a variety of ways. In cases in which only a small number of teachers were eligible (e.g., the school was small with only a few teachers in a given experience band), district or school officials invited the eligible teachers. In cases in which there were many eligible teachers, an e-mail message soliciting participation was sent to all teachers in the specified experience level range.

At the start of each focus group session, participants were informed of the study's purpose and procedures and of their rights as participants. Participants provided verbal consent to be audio-taped. Both a facilitator and note taker were present during each focus group session. The audio-recordings were transcribed and the recorder's notes reviewed where gaps in the transcription existed. In addition, a common definition of *educational research* was established. This definition excluded action research, which teachers conduct themselves, and their students' standardized test results. Instead, participants focused more on the type of research that is conducted by researchers at universities.

Data were analyzed inductively, allowing findings to emerge from frequent or dominant themes and subthemes in the data. Transcripts were coded using an iterative process that involved identifying and reidentifying emerging themes until agreement between two researchers was reached. Responses then were coded and grouped by theme. All data related to a particular theme or subtheme were read and reread in order to fully capture the essence of the discussion.

Responses also were linked to participants' school or district, experience level, and grade levels taught. This allowed differences between subgroups to be explored. However, the focus group findings should not be interpreted as representative of all teachers or of all teachers within a given subgroup, but rather as a useful starting place for future studies.

Findings

Based on data gathered from the focus groups, several key findings emerged about the ways teachers use educational research, the types of research teachers find most useful, and some of the barriers that prevent teachers from accessing and using research.

Overall, there is some demand for educational research by teachers. By and large, teachers use educational research, but most often in response to very specific classroom concerns and only after other more efficient resources have been tapped. However, due to content, presentation, and forms of dissemination, much of the available research is not as useful to teachers as it could be. With specific changes to the way research is presented, it could be both in greater demand and of greater use to improving teachers' practice.

Although teachers are not opposed to accessing and using research, research in general evokes a number of strong yet conflicting responses. The tension between using educational research to support instruction and the perceived gap between researchers and practitioners emerged as a common theme in all nine focus groups, regardless of teachers' years of experience, grade level taught, or school location in the greater Chicago area.

Teachers who held positive reactions to research viewed it as information about what works in the classroom. For example, some teachers indicated that research findings are a way to validate that educational practices are "tried and true" and have "proven to be successful." Research findings, then, can provide an extra level of assurance that teachers are implementing strategies and practices that work. One focus group participant illustrated confidence in research in the following way:

> When something's researched-based, it just makes me feel like someone actually took the time to see the successes or the failures or improvements with other students and in other districts. So, it's been proven either to work or not to work, versus someone saying, "Well, why don't you just try this."

However, not all teachers view educational research in a positive light. Many focus group participants suggested that research can seem removed from everyday classroom realities. This sentiment was reinforced when teachers believed that the research environment is not an accurate representation of actual classrooms or of classrooms with similar student compositions to theirs. As one high school teacher explained:

> A lot of times research is done by people who don't spend time in classrooms and who don't know students. It only takes you so far. Then, you feel like, "I'm living in it. I have a better sense of what students need and what works with students than someone who is just looking at a bunch of numbers on a piece of paper."

Although there was a wide degree of skepticism about researchers and research findings per se, this skepticism can be reduced when research comes from a source that teachers trust and if the findings work their classroom. Teachers use different criteria than researchers to determine whether research is credible or useful. For teachers, credible research is that which is conducted on a population that is similar to their class and has direct classroom application. In

other words, credibility is based on applicability and usability. In contrast, researchers tend to determine the extent to which research is sound by assessing whether the methods employed yielded results that were valid and reliable given the population studied and the research questions being addressed. As a result of their differing perspectives, teachers and researchers may view research outcomes and findings in very different ways.

In general, focus group participants were more likely to trust research findings that came from a source they deemed credible, such as a colleague, administrator, professor of theirs, or researcher with experience in the classroom. However, if the research is associated with promoting an educational product, the findings may be disregarded. Teachers also are more likely to trust their own experiences and feedback they receive from their students than suggestions made by a researcher. In the end, teachers have to do what seems to work in the classroom, regardless of official best practices or other research guidance. For some, a strategy that works with their students provides more evidence of success than what research might argue is effective. In addition, teachers may be more likely to buy into research that confirms their current instructional pedagogy. Conversely, if applying findings does not work in their classroom, teachers will abandon the effort. One elementary teacher described an unsuccessful attempt to put research into practice in the following way:

> The first year I was teaching, I was trying to implement some research into a math lesson. I thought the lesson was fantastic. I'll never forget: One of my students came to me during the class and told me that nobody was interested in the class but me. And according to our data, it should've been wonderful. So I've learned to gauge my lessons by how my students are working. Once you lose the kids, it's hard to get them back.

This brings to light the little discussed issue of the amount of time a teacher might be expected to try a research-based practice in the classroom, their autonomy to do so, and whether additional supports might be appropriate to help teachers try new practices.

Teachers turn to research when there is a pressing concern, but often only after they have consulted other, more efficient resources. Before teachers look at research to address clearly defined issues, they are more likely to turn to colleagues, trade journals such as *The Reading Teacher*, or the Internet, starting with Google. One high school teacher explained the process in the following way:

> It's a lot easier to walk down the hall and ask my colleagues who've had similar experiences or more experience than I do. I just sat down with a colleague the other day, to go over history knowledge that I could've looked up in a journal or a book, but I'd rather go to someone who I know has taught it and can explain it to me in a way that would help my students the best. And it's efficient, because I already see them.

As part of this professional collegiality, research can be shared. Teachers report that they also will use educational research when they are part of a study group, committee, school initiative, or other work group that uses research findings to support learning more broadly.

In addition to consulting colleagues, focus group participants mentioned that they will search for research, usually via the Internet, to address particular and concrete needs. For example, teachers spoke of consulting research about working with specific populations such as struggling readers;

special education students; English language learners (ELLs); or lesbian, gay, bisexual, and transgender (LGBT) students. Similarly, they turned to research to address a specific content need, for instance to gather information on an upcoming lesson. Finally, they might use research by reviewing information they have encountered in the past, such as best practices for a particular area.

Some important differences in teachers' use of research also emerged. First-year teachers were least likely to access educational research, noting that they were still trying to navigate the demands of the profession. Meanwhile, veteran teachers, particularly those with more than 15 years of experience, were more likely to serve on committees that influence school initiatives. As a result, the veteran teachers who participated in the focus group sessions looked to research to inform broader school policies more than classroom instruction. In addition, high school teachers noted that they were more inclined to access content-based research than studies about pedagogy.

Barriers to Consulting Research to Inform Instruction

Even though teachers may access research in response to a specific need, several barriers prevent teachers from accessing and using research as much as they would like.

Teachers indicated nearly unanimously that, given competing demands on their time, both seeking and reading research are low priorities. This concern was shared by teachers of all experience levels in urban and suburban elementary and high schools serving higher- and lower-income students. In light of their limited time, teachers stated that they are less likely to read research when it is presented with overwhelming information and in a manner that is dry and difficult to decipher.

As one elementary teacher stated:

> My mom has a Ph.D. in education, and I've tried to learn from those journals, and they're just awful. They're long and they're boring and they don't give practices to implement in a high school classroom. They just give very abstract findings, obscure findings.

Another elementary teacher reported:

> The statistics were presented in a way that was difficult for me to make heads or tails of. So I would love to know more about what's going on at the university level, but something is sort of lost in the translation. Not that it needs to be watered down, but it's just not accessible. It just feels like there's a little bit of a bridge missing between what they're doing at the university level and for that information to get filtered down to teachers in the classrooms.

Compared to their more experienced counterparts, new teachers were particularly resistant to spend time seeking educational research. Because they recently completed school, during which they were steeped in research, some mentioned that they do not need to consult research and, instead, would rather direct their time and energy toward effectively implementing what they already have learned.

However, even though focus group participants stated that they often do not have or make time for educational research, some mentioned that they would be more likely to read research if administrators advocated for and provided sanctioned time to discuss research with colleagues. For example, one elementary school received a grant that supported a teacher study group focusing on professional development about instructional strategies. Although the study groups were not focused specifically on reading research, they illustrate one way administrators can support teachers trying new strategies. In addition, teachers suggested that they also would be more likely to read research if the massive volumes of research were screened and filtered by school leaders or administrators.

The desire to receive research findings as a bulleted list, brief synopsis, or audio-visual media also was cited by an overwhelming majority of teacher participants as a way to access the research findings without taking time away from students' more pressing needs. With their time at a premium, the barriers posed by other issues become an even greater hindrance to teachers' use of research.

Teachers are less likely to use research if they do not see a connection between the population studied and its applicability to the students in their classroom. Some teachers suggested that the research setting is so controlled that they would be unable to replicate the program or practices in their classroom, while others believed that certain aspects of their own classroom, such as a high concentration of ELLs, make many research-based teaching strategies inappropriate for their students. If teachers believe their classroom does not reflect a study's students, resources, or context, they will be less likely to try to read or apply the findings. As one high school teacher noted:

> First of all, I often find myself asking "Does this apply to my situation here at [my school], in the classrooms that I'm in" because a lot of times it doesn't. It's a different setting. So, things that they have in there just may not apply to the kinds of setting that we're in. But, I also like to see how big is the study, how many people are involved, is it anecdotal, and does it square with my own personal experience.

In some cases, concerns about the usefulness of research sprung from teachers' first days in the classroom and the mismatch between what they were taught and what they encountered. Disillusioned by the irrelevance of the research discussed in teacher training to their real-life classroom situations, some teachers subsequently became less open to research as a practical way to find useful information.

Research can be made more appealing to teachers by including practical examples and illustrations (e.g., of student work, lesson plans) of how the findings may be readily translated into their own classrooms.

Some teachers also noted a desire to speak directly with researchers at conferences or professional development workshops in order to ask questions about the study context, methods, and applicability to other settings. Taking the issue a step further, some teachers desired to be consulted by researchers or to partake in collaborative research endeavors alongside researchers in order to ensure that the research questions, language, and tone spoke to teachers and their actual concerns.

Although time and relevance were the most cited barriers, other issues also limited teachers' use of research in some cases. One such barrier is the prohibitive costs of books and articles, memberships in professional associations, and inviting researchers to present in professional development activities. In the words of one participant:

> Cost is a barrier in some ways. To be a part of professional organizations, it can be expensive … Then you're not only using Google and stuff that's on the general Internet, but you have access to those journals that are providing you with that research. And databases are expensive. So I think cost is definitely a barrier.

In some cases, a lack of access to functioning computers in the classroom hindered teachers from seeking online research. Finally, a handful of teachers expressed hesitation over their own or their colleagues' preparedness to navigate search engines effectively.

Summary of Findings

In all, focus group participants were not opposed to using educational research; rather, they indicated that as long as certain conditions and criteria are met, research is or can be informative to their instructional practice. For research to be most useful to teachers it needs to take into account teachers' limited time by presenting findings in a clear, user-friendly manner; appear relevant to teachers' own classroom context and experience; and be provided by a person or organization they trust.

Recommendations

The goal of this exploratory study was to shed light on whether, which, under what circumstances, and how educational research is used by teachers in order to inform the future production and dissemination of research. According to John Dewey (1929):

> The sources of educational science are any portions of ascertained knowledge that enter into the heart, head, and hands of educators, and which, by entering in, render the performance of the educational function more enlightened, more humane, more truly educational than it was before (p. 76).

For educational research to enlighten and improve teachers' practice, certain changes must be made by educational researchers and other stakeholder groups. Based on the findings from this study, several recommendations are presented for researchers, teacher preparation programs, and school and district leaders and policymakers.

Recommendations for Researchers

Teachers genuinely want their students to benefit from the findings of good research. However, there is somewhat of a mismatch between what currently is supplied and what is demanded by teachers. This mismatch is not necessarily due to researchers' carelessness or lack of concern; quite on the contrary, it may be largely due to researchers' extreme care to present their findings as precisely as possible, a process that may lend itself to obscure language and lengthy discussions. In order to bring supply and demand into equilibrium, researchers should:

- **Get to the point.** Teachers are busy and want to see bulleted lists and brief synopses of the research findings. Not only does this help ensure that teachers will benefit from findings, but it also conveys to teachers that researchers understand and appreciate that teachers' time is at a premium.
- **Provide examples of the applicability of the research to real classroom situations**. This may include illustrations and hands-on examples of how to put the research findings into practice. Also, many teachers consider themselves visual learners and have expressed a desire to access research through audio-visual technology that allows them to see the recommended instructional practices put into action.
- **Write in an accessible manner.** This does not mean that research findings should be watered-down; rather it means that unnecessary jargon should be avoided in favor of straightforward language and sentence structure. In addition, complex statistical analyses should be described in laymen's terms.
- **Emphasize how research findings can help teachers solve specific, immediate classroom problems or address students' particular learning needs.** The demands of teaching tend to prevent teachers from exploring future-oriented or higher order issues than those immediately at-hand; however, there was near consensus that research is consulted in response to pressing needs.
- **Highlight the attributes positively associated with research.** Teachers already appreciate that good research represents a trustworthy and solid basis for coming to

conclusions about what works in the classroom. Research that reminds readers of these qualities and how they inspired the study is likely to be better received by teachers.

- **Be clear about the context of the study and its applicability to other settings.** Teachers are quite skeptical about the relevance of studies conducted in different contexts, especially when there are clear differences in grade level, ability level, socioeconomic level, class size, behavior, and culture. It is important to make clear which population was studied and, if it is believed that the findings are generalizable, to emphasize that point.
- **Be proactive about engaging with teachers and spending time in schools.** Although the demands of doing research may make it difficult, spending time in schools and with teachers, being available to present findings and answer questions about the research, and working collaboratively with teachers at each stage of the research process will make research more relevant and useful to teachers.

Recommendations for Teacher Preparation Programs

Teacher preparation programs play an important role in building the foundations for a research-oriented teaching career. As the gateway to the profession, they shape teachers' views and approaches to using research to inform their practice. In some cases, they are also the closest source of access to research and researchers that teachers will receive during their careers.

- **Be proactive about bringing teachers and researchers into contact.** Bridging the gap between teachers and researchers requires that the two groups build trust. This can be accomplished through interaction from the early stage of their careers: their preparation. It might take on the form of joint seminars, coffee hours, or project work, for example.
- **Prepare teachers to find the research they likely will need.** A number of teachers mentioned difficulty in using search engines effectively, deciding which research is credible, and making decisions about which sources to trust when studies contradict one another. Those preparing teachers should ensure that they learn how to search for research effectively, how to evaluate the quality of research, and how to interpret the findings.
- **Encourage and support teachers in accessing research once on the job.** Teacher preparation programs cannot feasibly address all of the potential classroom experiences that teachers might encounter. It is important to make it clear that gaps between the knowledge gained during preparation and that which is needed to address particular needs they will face in their specific classroom contexts can be filled in part through access to research on the job. A few teachers attributed their current use of research to their continued contact with and guidance from former graduate school professors.

Recommendations for School and District Leaders and Policymakers

Leaders and policymakers in schools and government have an important role to play in facilitating teachers' use of research by taking action to overcoming barriers to teachers' access to research. This primarily involves the provision of time, encouragement, and resources. Specifically, they can:

- **Create a system to filter high-quality research to teachers.** Although some teachers prefer to search for useful research themselves, having school administrators or teacher leaders filter research is attractive because it makes the task of locating relevant research less overwhelming, it comes to teachers from a trustworthy source, and it provides a channel for support and communication between teachers and school or district leaders.
- **Ensure that teachers have enough structured time specifically intended for accessing, collaborating on, and reflecting upon research.** The primary barrier to teachers' use of educational research was simply not having enough time. By providing adequate planning periods and support staff to guide teachers toward high-quality research, this type of professional growth and learning can take place. Teachers should be provided with regular time to work with others in their subject and grade level to discuss research findings and how to coherently apply them to teaching the school's curriculum. Teachers should receive both support from administrators and sufficient classroom autonomy in their implementation of research-based findings.
- **Create school or district initiatives that encourage and provide the time for teachers to access research.** Teachers appreciate time to discuss strategies and best practices that are backed by research. Providing regular opportunities for teachers to participate in committees or lead departmental meetings that include discussions regarding research is likely to enhance teachers' use of research.
- **Provide professional development opportunities that include opportunities learn about and reflect upon research.** Some teachers cited high-quality, ongoing, job-embedded professional development workshops as among the most useful sources of research that encouraged them to put research to practice in the classroom.
- **Maintain high-functioning technology for accessing research.** The Internet was the most cited source for accessing educational research. Yet in some cases, broken or slow computers, as well as blocked websites, presented a barrier to teachers who wished to access research.
- **Create a library of educational research.** Currently, teachers tend not to rely on libraries as a source of research-based information. Devoting a section of the school library or creating a staffroom library that houses articles, books, and digital media that exhibit the characteristics of research that are useful to teachers is one way to provide busy teachers with easy access to research.
- **Support the dissemination of research to teachers.** The cost of journal subscriptions, books, and workshops is a real barrier to teachers using research. Local and state-level policymakers should consider ways to reduce or eliminate this financial burden to encourage teachers' access to knowledge that is likely to help improve student learning.

Bridging the Gap

Several organizations have created online forums where teachers can access research-based information. Although the list that follows is certainly not exhaustive, it can serve a starting point to assess the types of information that are available to educators.

Consortium on Chicago School Research

The Consortium on Chicago School Research (CCSR) at the University of Chicago conducts research of high technical quality to inform and assess policy and practice in the Chicago Public Schools (CPS) (http://ccsr.uchicago.edu). CCSR aims to expand communication among researchers, policy makers, and practitioners and support the search for solutions to the problems of school reform. CCSR encourages using research to impact policy action and improve practice, but does not argue for particular policies or programs. Rather, CCSR builds capacity for school reform by identifying what matters for student success and school improvement, creating critical indicators to chart progress, and conducting theory-driven evaluation to identify how programs and policies are working.

Doing What Works

Doing What Works (http://dww.ed.gov) is a user-friendly website dedicated to assisting teachers in implementing effective educational practices. The website contains practice guides developed by the Institute of Education Sciences that evaluate research on the effectiveness of teaching practices described in the guides. The website also contains examples of possible ways this research may be used, but not necessarily the only ways to implement these teaching practices. Topics of focus include Early Childhood Education, English Language Learners, Math and Science, Psychology of Learning, and School Improvement.

Marzano Research Laboratory

Several focus group participants noted that they turned to Robert Marzano's research and work as a positive example of the way research effectively makes its way into the classroom. Marzano's website (http://www.marzanoresearch.com) serves as a clearinghouse for research-based instructional strategies that can be translated into practice. Marzano provides web-users with access to a database that includes meta-analyses of action research projects. The website also directs teachers to research-based instructional strategies and provides direction on how to meet standards and use assessments. In addition, teachers can find information on teaching vocabulary, school leadership, and classroom management.

National Council of Teachers of Mathematics

The National Council of Teachers of Mathematics (http://www.nctm.org/) serves as a professional organization that provides teachers with information not only about best practices in mathematics instruction, but also about professional development, research, and advocacy.

Pathways to School Improvement

The Pathways to School Improvement resource (http://www.ncrel.org/sdrs/) was developed more than a decade ago by North Central Regional Education Laboratory at Learning Point Associates. Pathways synthesizes research, policy, and best practices on issues critical to educators, parents, and community members involved in school improvement. It covers several critical issues to educators, including technology in the classroom; science and mathematics instruction; literacy; and at-risk students.

The Center for Teaching Quality

The Center for Teaching Quality (CTQ) (http://www.teachingquality.org) focuses on teacher leadership, research, and policy. CTQ produces research that focus on teacher working conditions, effective science teaching, and higher education. In addition to disseminating research findings, CTQ provides web-users with access to several blogs written by teachers on topics such as high-needs schools, teaching science, music education, and best practices.

The International Reading Association

The International Reading Association (IRA) (http://www.reading.org), which consists of roughly 85,000 members, supports literacy professionals through access to resources, advocacy efforts, volunteerism, and professional development. IRA produces several peer-reviewed journals, including *The Reading Teacher*, *Journal of Adolescent and Adult Literacy*, *Reading Research Quarterly*, and *Lectura Y Vida*. In addition, IRA supports on online journal called *Reading Online* that houses journal articles on topics such as adolescent literacy, assessment, children's literature, classroom strategies, and motivation.

Transition to High School Reports

CCSR recently has produced a series of web reports about how graduates of each CPS elementary school are fairing in CPS high schools. Each report is customized by school and provides information about which high schools keep former eighth grade students on track for high school graduation. Web-users can select a school of interest and download the school's report. The Transition to High School reports (http://ccsr.uchicago.edu/web_reports/transition/) can provide elementary and high school teachers with important information about on-track rates by high school attended as well as by student background.

Limitations and Future Research

This study has two key limitations. First, as an exploratory study, the sample size was small, tapping into the perspectives of only 49 teachers from the same geographic area. Second, participation in the focus groups consisted largely of elementary school teachers; there was not a representative view from middle or high school teachers.

Despite these limits, this study provides thought-provoking insights into the teachers' use of research, insights that could be well worth exploring through additional study. Future work might further explore these ideas in a variety of ways, including obtaining the perspective of educational researchers, exploring the role of social networks in disseminating research-based practices, and investigating the use of research by particularly successful teachers.

The Perspective of Educational Researchers

Although this exploratory study examined teachers' perspectives on educational research, if the desire truly exists to bridge the gap between researchers and practitioners, one possible next step is to hear directly from educational researchers: Do researchers view their work as a means to improving instructional practice? More specifically, do educational researchers have aspirations to disseminate findings in ways that that are useful to teachers, and, if so, are there barriers that prevent this from happening?

As the other half of the researcher–practitioner divide, educational researchers provide a much needed perspective on research, its purpose, and the way findings are disseminated. Once the view of researchers is clarified, the two points of view can be compared for similarities as well as areas of disagreement. By identifying teachers' and researchers' perspectives, the two communities can be brought together to discuss ways to make research findings relevant and useful for both parties.

Social Networking

The majority of focus group participants indicated that they would be more likely to turn to colleagues for information about how to improve instruction before consulting research findings. Exploring how teachers use social networks to gather information may lead to a better understanding of how to more effectively disseminate research findings. A future study, then, could explore possible connections between group norms, social influence, and use of research. For example, how do group norms or school culture influence the way teachers use research? Do teachers in schools with stronger collegial networks influence whether their colleagues use or access research? Do teachers who are part of an organized cohesive group, such as a professional learning community, access research more frequently?

Effective Teachers and Use of Research

Another potential avenue for exploration includes looking at whether teachers who have been identified as particularly effective by district or school performance metrics use research to inform their practice: Are effective teachers more likely to access research than teachers who are

less effective in the classroom? Do they make more time to access research? Are they part of programs or communities that support using research?

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Appendix. Focus Group Protocol

Hello, I'm_____, and I am here to learn more about if and how you use research to inform teaching. As part of this study, we are particularly interested in what, if any, research you use, and how it is useful. We are also interested in exploring ways to bridge the gap between research and practice.

None of the information collected from you will be used to evaluate your performance as a teacher. More broadly, our team is not using the information from the focus group to make any judgments about specific teachers or schools. Your responses to the focus group questions will remain confidential, and you will not be identified in any of our reports.

Thank you for taking the time to talk with me. I would like to tape record the focus group in order to accurately capture everything you tell me. We will also be taking notes during the focus group. Do I have your permission to record the conversation with you? [*Note: If the respondents wish not to be tape recorded, take notes, but do not proceed with recording. If yes, turn the tape recorder on, and repeat the informed consent question.]*

It would be helpful if we could go around the group and do introductions. This provides me with some context as you respond to my questions. Please say your first name, the grade you teach, the number of years you have taught at this school, and the number of years you've been teaching overall.

Before we begin our conversation, I want to remind you that when we are talking about research, we mean research that you might consult to inform your teaching. We are *not* looking at action-research--the type of research that *you* would conduct in your own classroom. Let me know if you need any clarification on the type of research that we are interested in discussing with you.

1. Do you seek out research-based information? Why or why not? (*Probe: How often? Under what circumstances?)*
2. In education, when you hear the word research, what kind of information comes to mind?
3. Is there research that you find useful? If so, what type? (*Probe: How does research benefit you? Your students?)*
4. What sources do you rely on to find useful research? (*Probe: Journals? Trade magazines? Internet searches?*
5. Do you determine whether the research you are using is credible? If so, how? (*Probe: Rigorous?)*
6. Have you encountered barriers to using educational research? If so, what were they?
7. Is there anything that would make using research more appealing to you? (*Probe: What kind of support would make using research easier for you?*
8. How have you been prepared to use research? (*Probe: Graduate programs? Professional development? Self-study?)*

   8a. If you have been prepared to use research, do you think this preparation was adequate? Why or why not?