

*Research Use in School District Central Office Decision Making:  
A Case Study*

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The current educational policy climate in the United States places immense pressure on school district central offices to use evidence to inform their decisions in order to improve student learning. In light of both the expectations of evidence-based decision-making and the significance of central offices in supporting teaching and learning, there is considerably little understanding of *whether*, *how*, and *why* central office decision-makers use research evidence to support educational decisions. Through an embedded case study of Hamilton School District and three central office decisions, this research examines the role of research in central office decisions, focusing on how research is used, what research resources are used, and the factors that influence use. Evidence of limited instrumental and political uses of research in comparison to conceptual and symbolic use, preferences for practitioner-oriented resources, and the importance of research attributes, organizational context and culture, and decision-maker characteristics are presented. Findings suggest a need for strategies to improve instrumental use, including reconsidering the production and dissemination of research, facilitating the flow of knowledge within the central office, and further examination of conceptual uses of research.

*Keywords:* Research Use; School Districts; Evidence-Based Decision-Making; Central Office

*Use and Non-Use of Education Research in School District Central Office Decision Making:  
A Case Study*

Significant research has established the importance of school district central offices in supporting and engendering change in education (e.g. Honig, et al, 2010; Honig, et al, 2009; Corcoran, et al, 2001; Supovitz, 2006; Datnow and Castellano, 2003; Elmore and Burney 1997; Marsh, et al, 2005; Massell, 2000; McLaughlin and Talbert, 2003) and in supporting student achievement (see MacIver and Farley-Ripple, 2008 for a review). As a result of its relationship to teaching and learning, the consequences of decision making in central offices have become increasingly significant. This is reflected in current policy which mandates that decisions be informed by evidence.

The United States Department of Education’s federal data reporting guidelines clearly state that, “the accountability provisions included in the *No Child Left Behind Act* of 2001 (NCLB) significantly increased the urgency for states, local school district central offices, and schools to produce accurate, reliable, high-quality educational data”<sup>1</sup>. Further, when faced with decisions about school reform, districts are expected to search for and interpret evidence about program effectiveness, emphasizing educational programs and practices that have been “clearly demonstrated to be effective through rigorous scientific research” (Desktop reference xiii). The legislation also includes several sections in which the use of social science research should inform instructional decision-making while other portions of the legislation discuss the role of evaluation and data collection in educational accountability. Furthermore, the law directs districts on the *use* of these evaluations within their own decisions, namely to improve, assess the effectiveness of, and determine continuation of funding for programs. Additionally, federal guidance on implementing No Child Left Behind, specifically in regard to implementing school-wide improvement programs, suggests that districts considering programs developed by outside agencies should “insist on seeing solid, research-based evidence of a program’s success”<sup>2</sup>.

The United States, however, is not alone in emphasizing evidence-based decision-making in education. Connections between education and economic growth, concern with financial accountability, and the availability and quality of educational research have elevated the issue globally (OECD, 2007). Efforts to increase the role of research evidence in educational decision-making have emerged in places such as Canada, Finland, Japan, Singapore, and the UK (reviewed in OECD, 2007; Cooper, et al, 2009; Bransford, et al, 2009). These initiatives, often labeled under knowledge mobilization, are not embedded in or mandated by national education policy, as they are in the United States, nor do they explicitly focus on central offices (or comparable levels of the system). However, they are a response to pressure for accountability and effectiveness in education, an important commonality across the U.S. and other cases.

U.S. federal mandates privilege data and research as valid forms of evidence for use in decision-making, yet research on central office decision-making is only beginning to emerge. The role of data in decision-making has received great attention in recent research and practice (Wayman and Cho, 2007; Datnow, Park, and Wohlstetter, 2007; Kerr, et al, 2006; Massell, 2001); however, less attention has been paid to the role of research evidence, particularly at the central office level. In light of both the expectations of evidence-based decision-making and growing significance of central offices in supporting teaching and learning, there is considerably little understanding of *whether*, *how*, and *why* central office decision-makers use research

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<sup>1</sup> <http://www.ed.gov/policy/elsec/guid/standardsassessment/nclbdataguidance.doc>

<sup>2</sup> <http://www.ed.gov/policy/elsec/guid/designingswpguid.doc>

evidence to support educational decisions. A review of the literature, conducted by Honig and Coburn (2008), observed a substantial body of work advocating or prescribing processes for utilizing research and evaluation evidence in education but far fewer that examine use empirically. Within that body of literature there were few studies that focus on the process of use or variation in use within the central office.

The purpose of this study, therefore, is to build upon existing literature by exploring the role of research in district central office curricular and instructional decision-making through an embedded case study of three decisions. Through intensive interviews and observations conducted over the course of one school year, this research seeks to examine how research evidence is used in central office decision-making, what kinds of research inform decisions, and what factors influence whether and how research is used. Findings reveal limited instrumental and political uses of research evidence in comparison to conceptual and symbolic, as well as a preference for practitioner-oriented research resources.

### **Background**

The issue of evidence use is not new, and this research builds upon thirty years of work that began with knowledge utilization in the 1970s and continues with evidence-based and data-driven decision-making research today. The present study draws on this body of work in conceptualizing “research” and “use” and in understanding the complex factors which influence evidence use in education.

#### *“Research” and “Use”*

Over several decades of research, the literature has employed a number of terms relating to the use of evidence in decision making. Within the knowledge utilization literature, “knowledge” is described as social science research, policy research or analysis, or evaluation. Current federal mandates, such as *NCLB* described earlier, emphasize the social science research and evaluation as evidence in decision-making, yet it is unclear whether these forms are valued in educational decision-making and whether there is a shared understanding of what constitutes research evidence across stakeholders (Bransford, et al, 2009). Therefore, for the purposes of this study, “research” is left broadly defined, and how decision-makers identify and value research is one of the foci of this project.

This broad conceptualization of “research” is not the only evidence that can inform decision-making. Recent research on data-driven decision-making focuses more on hard or quantitative data and synthesized information resulting from such data. Decision-makers also tend to use Kennedy (1982b) calls “working knowledge”, defined as “the entire array of beliefs, assumptions, interests, and experiences that influences the behavior of individuals at work” (Kennedy, 1982b: 1-2). Evidence can also be anecdotal, information collected through casual conversation, and similar “senses” of the problem. While the purpose of this study is to focus on the role of research evidence, it is important to consider these other forms in order to understand alternatives available to decision-makers as well as the relationship between research and these other forms.

With respect to “use”, research has identified four distinct purposes of evidence use: instrumental, conceptual, political, and symbolic. *Instrumental use* is found where respondents are able to cite or document specific ways in which evidence that was used in decision-making. For example, Coburn and Talbert’s (2006) examination of conceptions of evidence in school districts finds four types of purposes for evidence use: meeting accountability demands,

informing program and policy decisions, monitoring student progress to inform placement decisions, and monitoring student progress to inform instructional practices (Coburn and Talbert, 2006: 12). *Conceptual use* describes gradual shifts in terms of policymakers’ awareness and re-orientation of their basic perspectives, meaning that use can occur even if direct application of evidence does not. This “enlightenment” function (Weiss and Bucuvalas, 1980) of research “contributes to the policy process indirectly and over time by shaping more general interpretations and understandings of issues and gradually altering the working assumptions and concepts of policymakers” (Porter, 1997: 34). Huberman (1990) articulates *political use* as relating to the manipulation of evidence to attain specific power or profit goals, such as a political gain. In one study, central office administrators appear to use evidence to build political support for particular improvement efforts (Corcoran, et al, 2001). Closely related to the idea of political use is *symbolic use*. According to Coburn, et al, (2009), “Reference to research findings in such general terms is a common observation in recent literature on evidence-based decision-making.” Furthermore, it was actually more common for district personnel to use research studies, data, or general claims that “research says” to justify, persuade, and bring legitimacy to potential solutions that were already favored or even enacted. Such use, they argue, is symbolic in nature.

Both evidence and use are complicated concepts, and a review of their definitions in the literature is useful in framing this research. This discussion has illustrated that evidence refers to a number of types of information, ranging from anecdotal data to formal evaluation and research. Furthermore, use includes a range of possibilities, including instrumental, conceptual and political uses. Establishing the range and definition of evidence and use clarifies the key concepts of this study.

#### *Research on Factors Shaping Use*

Research on evidence-based decision making often focuses on factors influencing *whether* or *how* evidence is used. Table 1 briefly summarizes research on these factors, which generally fall in three categories: characteristics of evidence, characteristics of the organizational context, and characteristics of decision-makers. [Insert Table 1 here]

#### *Research Evidence in School District Central Offices*

A review of the literature establishes a theoretical framework in which we identify a complex set of “evidence”, “uses”, and factors (evidence, organizational context, decision-makers) that influence the decision-making process. This review, however, is informed by research across several disciplines and contexts, rather than by empirical studies of central offices. Honig and Coburn’s (2008) review reveals that there are limited empirical studies which examine social science research or evaluation evidence use in central offices. These studies offer evidence of the political uses of research evidence by central office administrators and in central office decision-making (Corcoran, et al, 2001; Kennedy, 1982a, 1984), limited or constrained search (Kerr, et al, 2005), use as mediated by interpretation (Spillane, 2000; Kennedy, 1982b, 1984), and barriers to use associated with characteristics of evidence (Kennedy, 1982a, Coburn and Talbert, 2006; Corcoran, et al, 2001; Kean, 1980; West and Rhoton, 1994), organizational context and politics (Kerr, et al, 2006; Spillane and Thompson, 1997; David 1981), and decision-makers (Bickel and Cooley, 1985; Coburn and Talbert, 2006; Spillane 2000; Corcoran, et al, 2001; Kennedy 1982a, 1982b). These findings represent a small body of evidence on which to

draw conclusions about research use in central office decision-making. Honig and Coburn (2008) call for further research on evidence use in central offices noting in particular the need to explore variation in processes within a central office, further examination of processes associated with use, and the conditions under which factors shaping evidence use support or hinder use.

The present research responds to this call and seeks to understand the role of research evidence in central office decision-making through an embedded case study address the following research questions:

1. How does research evidence inform central office curricular and instructional decisions in instrumental, conceptual, political and symbolic ways?
2. What research evidence is used and valued in central office decision-making?
3. What factors shape research use in central office decision-making?

### **Research Methodology**

Research was conducted in Hamilton School District, a highly diverse district that straddles urban and suburban settings, during the 2006-2007 school year. The district served about approximately 16,000 students in 30 schools, with a student population that was 50% minority (non-white), more than 40% free/reduced lunch eligible (a measure of socio-economic status), and was growing in the percent of English-Language Learners. This site was selected based on its large size relative to surrounding districts, the diversity of its student population, its tenuous accountability status, and its willingness to participate.

This research is designed as an embedded case study (Yin, 1993) with the primary unit of analysis is the school district central office, and the sub-units of analysis are decisions within the school district. Case study is an appropriate for exploring all three research questions because it enables the study of complex social phenomena, and the embedded design permits an examination of instrumental use of research evidence while controlling for important organizational and political characteristics of the district that might influence decision-making or evidence use.

The data analyzed in the present study were collected as part of a research project focusing on broader issues of decision-making processes and evidence use in school districts and have been reanalyzed to focus on processes specifically related to the use of research evidence. Noted earlier, related literature broadly defines “research” to include social science research, policy analysis, and evaluation. However, it is unclear what central-office decision-makers considered to be “research”. Therefore, for the purposes of this study, “research evidence” is considered in its broadest sense and includes any reference to a “study”, “report”, “research” or “evaluation”, as well as “findings”, “results”, or “analyses” from those sources of evidence. In direct dialogue with participants, the researcher was careful not to define the term “research” in order to prevent biasing responses; rather, interviewees were asked what research resources they used as a means of unearthing their own conceptions of this type of evidence.

Data include sustained observations of central office meetings, in-depth interviews, and document analysis. Observations of central office meetings included division meetings for Curriculum and Instruction, Professional Development, and School Services as well as inter-divisional meetings for the School Improvement Planning Committee, Strategic Planning Council, textbook adoption committee, district administrative retreat, and public school board meetings. A total of 34 observations were conducted. Observations were focused on references to evidence (broadly construed and informed by the literature reviewed earlier), decisions with the potential to impact teaching and learning, and factors previously found to influence use as

reviewed above. However, notes were as comprehensive as possible so as not to exclude other potentially valuable data from being considered. Observations revealed the dynamics of school district decision-making, the types of evidence used, and when and by whom evidence was used.

In order to examine how individuals search for and interpret evidence and why certain forms of evidence are included in decisions while others are excluded, in-depth interviews were used to complement observations. The researcher conducted 19 interviews with district personnel and one interview with a partner responsible for data management. Interviewees were selected based on their role in district curricular and instructional decisions and their membership on pertinent district-level committees. Interviews were semi-structured to ensure that the same questions were asked of each interviewee but were also made relevant to the work of each administrator as well as the content of observations conducted in committee meetings.

Document analysis produced contextual information about the structure and culture of Hamilton School District. Documents collected fall into three categories: contextual and background information (including NCLB Report Cards, district profiles, school board agendas), documents used or created as part of the decision-making process (including meeting agendas, powerpoint presentations, school improvement plans), and examples of evidence used by decision-makers (including departmental data reports, achievement summary reports). Documents were provided at the discretion of and with permission of the Superintendent, but no request for information was ever denied.

All data were entered into NVivo for coding and analysis, except for hard copies of documents that, at the time, were not able to be coded electronically. After an initial read of all the data, three decisions were identified for in-depth analysis to address the first research question and were selected on the basis of the following criteria: a) the timing of the decision and the ability to follow the decision from beginning to completion, b) the ability to triangulate data about the decision across multiple participants and/or observations, c) the decisions’ potential to impact teaching and learning, and d) the extent to which decisions were a response to accountability policy and status. A preliminary coding framework was developed based on existing literature to identify forms of evidence, use, and factors influencing use. Data were re-examined in an iterative process to and emerging patterns were coded for analysis. Coding and analysis of the three decisions was conducted in a fashion consistent with cross-case synthesis, a technique which treats each individual case study as a separate study and aggregates findings across a number of cases (Yin, 2003).

*The research context: Hamilton School District and the three decision cases*

Under *NCLB*, districts are rated annually on the basis of student assessment data. Between 2003 and 2007, Hamilton School District’s accountability ratings teetered back and forth between meeting federal and state goals and being identified as in need of improvement. The district’s tenuous status created a sense of urgency among district personnel, and decision-makers attribute many of the changes in district culture and practice to the high-stakes environment. When asked about current challenges the district faces in terms of meeting the demands of accountability policy, decision-maker responses were almost exclusively limited to curricular and instructional issues. They claimed that meeting the needs of academically diverse students, providing appropriate professional development to improve instruction, and getting teachers to see both the need for and their role in creating change as some of the difficulties the district encounters. These challenges, coupled with accountability ratings and the resulting sense of urgency, resulted in a cultural shift toward what is described by district decision-makers as

“outcome-oriented”, “streamlined”, or “business”-style practices while also renewing its focus on instruction.

This new district culture is primarily driven by the Strategic Plan. Prior to 2006-2007, HSD had no such guiding document, so the existence of a plan in and of itself represents a significant change in direction for the district. The Strategic Plan is “a call for change at levels of the organization, and across all departments, all with the purpose of increasing the system’s effectiveness in a way that is consistent with a clearly defined mission.” In practice, this cultural shift was evidenced in four characteristics of the organization’s new practice: instruction as a priority, urgency, collaboration, and efficiency and effectiveness.

- *Instruction.* The Strategic Plan clearly illustrates the centrality of instruction for both the district mission and for each and every department. As one decision-maker stated, “Now there’s a focus everybody understands, that we are looking at instructional practices.”
- *Urgency.* Urgency, a term that emerged from a book discussed by the Strategic Planning Council, is expressed throughout the Strategic Plan and in Planning Council meetings, most explicitly in statements about the need for change.
- *Collaboration and participation.* The Strategic Plan demands “coordinated operations within and across departments”, and decision-makers clearly articulated that one of the biggest, and most valuable, changes as a result of the cultural shift in the district has been improved communication and interaction between branches of the central office.
- *Efficiency and effectiveness.* The twin goals of efficiency and effectiveness are evident in several district actions: the establishment of the Office of Research and Evaluation; data-driven decision-making as one of the plan’s priorities; instructional technology initiatives for assessment and data use; the district’s relationship to an external data management organization; and massive data collection efforts (including standardized assessment data, formative assessment data, demographic and special service data, parent surveys, teacher surveys, teacher qualification data, instructional evaluation tools, and professional development workshop offerings, participation, and evaluations).

In the 2006-2007 school year, HSD experienced significant pressure under state and federal accountability policy, and decision-makers believed that their greatest challenges in meeting those demands were related to curriculum and instruction. In order to examine instrumental use of research evidence, three curricular and instructional decisions were examined: the reorganization of the delivery of professional development, a district-wide high school textbook adoption, and the redesign and implementation of school improvement plans.

*Decision 1: Overhauling professional development.* During a number of School Improvement Planning and Strategic Planning Council meetings, as well as in departmental meetings, the Director of Professional Development mentioned concern for how professional development is delivered in Hamilton School District. His concerns were primarily related to both the consistency of workshops and the appropriateness of workshop content in meeting the district’s instructional goals. In a department meetings, he states:

*We are going to change the way we do [professional development]. If we really want instruction to change, we do something like 8 days a month, four schools a day. Each month, they’ll train people in different strategies, such as differentiated instruction, data-driven decision-making, best practices, etc. Everyone in the district would get the same thing, so administrators could walk around and say, “I know you’ve had training in...” It will make it a hundred times more effective. Teachers have to attend meetings as it is in their contract. Now we can see if it is happening in classrooms, especially with the*

*drop-ins from the road tool. We’ll still need ELL<sup>3</sup> and other special trainings as they have different needs.*

Having identified the problem, the Director of Professional Development began developing a solution or plan of action. It appeared from observation and interviews that the development of this plan occurred outside of the strategic planning or school improvement planning processes and was constructed within the Division of Professional Development. Informal conversations with other division heads were a source of input in the plan as well. The Director of Professional Development ultimately put forth a proposal for changing the system of delivery in the district which was adopted in April. Like the development of the plan, the adoption occurred outside of regular and formal district meetings. The Superintendent was the final authority on whether or not to adopt this change, and once he expressed approval, it circulated to the various divisions in the district.

*Decision 2: High school textbook adoption.* The process of adopting a new textbook was organized and supervised by the Director of Curriculum and Instruction, and the committee consisted of teachers from each high school, representing each grade level as well as special populations (such as special education and English Language Learners). The process consisted of six meetings which included an introductory meeting, four publisher presentations, and one session in which the decision would be made. The Director of Curriculum and Instruction explained the selection of publishers:

*They are the top four. I mean they sell more textbooks than anybody else. ... Because financially they are going to give you a better deal. And be able to offer more incentives because for what we buy, we get almost an equal amount back in perks. So we wanted, you know, to deal with somebody who is big enough to do that. And if you were to go through the contents of what is in the book, you would find that there is a lot of similarity in the stories and what not that are included.*

A key feature of this process is the evaluation form teachers were to use to rate the product of each publisher, which included a determination of whether “the instructional content is consistent with research findings and child development”.

On the evening of the final presentation, the Director of Curriculum and Instruction had tallied the ratings for each of the publishers but would not to reveal the results until after a group discussion and would do so only if the conversation failed to result in a consensus. The teachers debated each of the four options and many of the same concerns and opinions were expressed during this conversation, resulting in a fairly extensive pro and con list for each publisher. At the end of the discussion, the group decided on one publisher.

*Decision 3: School improvement planning.* Prior to 2006-2007, school improvement plans were produced for compliance purposes only, a “huge volume that would then sit on the shelf.” In light of the school district’s status as in need of improvement in 2004-2005, it was determined that the school improvement plan “was not an effective way drive instruction or to improve instruction”. Subsequently, the School Improvement Planning Committee was established, reflecting what one decision-maker articulated as “the need to streamline our school improvement process.” The format of the plans as they were implemented for the 2006-2007 school year included:

- Academic needs identified at the district-level using state assessment data, school climate needs identified through discipline data, and parent involvement needs determined by the

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<sup>3</sup> ELL is a typical reference to English-Language-Learners



district through an unknown method.

- A requirement to select three school objectives based on accountability requirements.
- Selecting (from a specified list) a strategy for meeting each objective, paired with a timeline and person responsible for implementing that strategy.
- Selecting (from a specified list) a data measure for determining progress toward the objective.

Once school leaders completed their plans, School Improvement Committee members were assigned to each school for “monitoring and mentoring” during implementation of the plan. The Committee then held weekly meetings in which members share reports or data on SIP implementation and discuss any problems in the design of the plan or its implementation. Issues arose as a result of changes in accountability policy, through discussions of routinely shared data, or through the mentoring and monitoring of schools. In response to the problems identified through accountability policy, professional experience, and focus groups, the Committee decided to make a number of changes to the plan for the next year, including expanding the scope of the plan to include additional grade levels and subject areas, and adding new options for instructional needs, strategies and measures.

### **Findings and Discussion**

An analysis of the three decisions and the role of research evidence in broader decision processes in Hamilton School District permit a deep examination of the use – and absence of use – of research in curricular and instructional decision-making. In this section, evidence from Hamilton School District is examined as it relates to the three research questions guiding this work.

#### *Evidence of Use*

*Instrumental use.* Instrumental use, defined as directly informing a specific decision, did not occur frequently in the decisions observed. The single instance of instrumental use occurred in the professional development decision, and use occurred in both the problem identification and search phases of the process. The Director identified the professional development delivery as a problem by using multiple sources of information, which included education research. In both interviews and observations, he clearly stated that “the research says” that professional development must be systemic if it is to make a difference in instruction, most frequently referring to the research literature on professional development. For example, in a department meeting, he stated, “If we keep going with the way we are doing it, there will be no change. All the research out there says professional development should be systemic.” Other sources of information were used, including school improvement plans, professional development evaluations, and “common sense”. The Director also appeared to use research evidence into the design of the new plan, explaining that the research emphasizes systemic delivery as the means to achieve effective professional development. However, division heads providing additional input into the new plan did not make any reference to research evidence, suggesting that the Director was alone in using research to inform this decision.

Observations of instrumental research use in the other decisions were noticeably absent, even when opportunities to use research arose. In the case of the high school textbook adoption, the search for options did not include research or evaluation, as the selection of publishers was driven by both experience and financial considerations. Additionally, only three publishers mentioned specifically mentioned how research influenced their product. Those that did linked

research to either design issues (e.g. the size of the font or number of columns) or spoke in general terms (e.g. “the research has shown us what was wrong” or “Trust me, the research is there”). Further, in the committee’s subsequent conversations there appeared to be widespread disregard for the value of the evaluation tool, observed as random assignment of ratings, sharing or copying ratings, and rating based on incorrect or little information. Dismissal of the research-related criteria was observed specifically, including comments such as “how would we know?” and “how’s that going to affect teaching anyway?” Teacher evaluations of textbook presentations also appeared to be primarily concerned with issues drawn from their classroom experiences. For example, one teacher was extremely concerned with reference citation guidelines, another with homonyms, and another with acquiring a separate grammar textbook. It did not appear that any reflected district-wide data-based issues that needed to be addressed through the textbook adoption. In the final discussion resulting in choice of textbook, no reference to research evidence was made.

In the School Improvement Planning process, the need for redesign was identified through anecdotal evidence of the lack of their implementation in HSD schools, rather than through any evaluation. Within the new improvement plans, achievement or performance targets were set based on policy goals, and instructional strategies for meeting those goals were identified by the committee without explicit mention of research or evaluation of their effectiveness. As the new plans were rolled out and problems were identified, on two occasions members of this committee discussed a need to focus on getting principals in classrooms. To incite action on this issue, the Superintendent referred to the “Kentucky study” as evidence that learning improves when leaders spend more time in classrooms. However, in adjustments made for upcoming years, no specific action was taken on this issue.

*Conceptual use.* Conceptual use describes gradual shifts in terms of policymakers’ awareness and a re-orientation of their basic perspectives that may occur even if direct application of findings does not. In the three curricular and instructional decisions, conceptual use is also evident only in the professional development example. The Director of Professional Development’s understanding of effective delivery and how information *should* be disseminated to teachers and schools is heavily influenced by what, by his account, the “research says”. This new perspective, as discussed earlier, is reflected in his subsequent identification of a problem as well as in the design of the new delivery strategy.

Conceptual use was also observed as being part of the broader district decision process. A second very pertinent example comes from the Superintendent, who refers to the “Kentucky study” in multiple Strategic Planning Council and School Improvement Planning meetings as evidence that led him to emphasize instructional over management leadership in the central office and in schools – a feature of both the new Strategic Plan and the changing district culture.

*It's invaluable, because if you're gonna truly use data, the research generates the data, and you heard me say, "You're all here. I'm not one into trying to figure out what works. If there's something out there..." I mean, we have, like, creative ideas that we generate on our own, but if a study shows, for example, like the Kentucky one did – which was very dramatic – the principal spent 75% of his or her time in the classroom; performance results jumped 50–100%; that is incredible! Plus, it's also logical. Because what I just said earlier about us now monitoring what's happening; we're monitoring the principals to see if they are indeed observing what they should be observing and monitoring what the teachers are doing...if principals are doing that, there are things (that) will happen*

*for kids, 'cause they're gonna know whether the teachers are teaching what they're supposed to even if they know how to teach; whether classrooms are being managed properly and all that stuff.*

While these examples provide evidence of conceptual use, they are the only ones directly observed. This is likely due to the challenges in ascertaining conceptual use through observations and interviews. By definition, such use is indirect and shapes decision-makers’ beliefs about an issue – neither of which are obvious to an outside observer nor may even be unknown even to the decision-makers themselves.

In an attempt to learn more about conceptual use, district administrators were asked if they could recall an instance where they learned something from research or data that changed their minds about an educational issue. Responses varied in terms of the type of evidence reported as well as how that evidence was used conceptually. Some examples include:

- Learning through doctoral work that any given educational outcome can be attributed to a complex set of independent variables, rather than a single factor
- Attending conferences or visiting websites to “keep fresh” on relevant educational issues
- Considering a combination of research and observations of how other districts are working on inclusion in special education to judge the district’s progress and need for change
- Broadly looking at all of the district-collected data to get a sense of the “big picture”.
- “It’s always happening; it’s just not one point. Do I think what we’re doing in curriculum – looking at data, and all of a sudden there are a few points that I’ve changed my mind with.”
- The impact of an anecdotal example of twins, one of whom picked up reading through whole language while the other learned through phonics, on the philosophy that children learn differently and no one solution will always work
- Learning how to effectively instruct students with diverse needs from personal classroom experience grouping students hetero- and homogenously

These illustrations of conceptual use represent a very extensive range of evidence as well as purposes. Decision-makers were as likely to refer to research as they were to other forms (e.g. data or professional knowledge) – a significantly different pattern than found with instrumental use where research played a very limited role. Furthermore, the purposes of use, even within the conceptual category, are diverse, ranging from influencing beliefs about student learning, to helping decision-makers stay informed of current and emerging best practices. Though there is evidence of conceptual research, it is not possible to draw conclusions about the frequency or quality of such use.

*Political and symbolic use.* Like conceptual use, political and symbolic use can be difficult to identify without specific knowledge of how evidence was obtained or knowledge of decision-makers’ intentions. As such, political uses of evidence were not often directly observed in Hamilton School District. Examples of research used to secure support for a position in the three curricular and instructional decisions were from the publishers of the language arts textbooks who do so in promoting the quality of their product. However, as research was not used as criteria in deciding between textbooks, there is no apparent impact of political research use on this decision. Outside of the three decisions, political use of research evidence was not observed, though examples of the political use of other evidence, including quantitative data, were noted specifically in school board meetings.

Symbolic use describes vague or general references to research, as well as invoking research after a decision has already been made. Therefore, symbolic use is a sort of measure of

how deeply decision-makers are engaging with evidence, as well as the level to which the evidence actually informs the decision process as it occurs. As such, symbolic use can also describe the nature of either instrumental or conceptual use. Data from the three curricular and instructional decisions reveal that symbolic use of research occurred in the professional development decision and, to a lesser extent, in the textbook adoption. The Director of Professional Development’s frequent reference to what the “research says” and difficulty articulating specific studies or findings are evidence of this type of symbolic use. Similarly, presentations by textbook publishers who did refer to the research, did so in vague and general ways: “Trust me. The research is there.” Outside of the three decisions, the phrase “research says” was invoked, for example, in the need for a campaign to roll out new data-use technology by the Strategic Planning Council, and the term “research-based” was used to describe strategies presented at the district retreat. In these cases, there were no specific details (e.g. author, source, findings) cited.

Findings from Hamilton School District suggest that research evidence played a limited role in school district curricular and instructional decision-making, whether in the three decision cases or in broader district processes. Instrumental use was observed only in one decision, and this was later shown to be largely symbolic. Opportunities for additional instrumental use existed in the other decisions but did not result in use, the reasons for which are explored in the next section. Conceptual use was documented, and the various ways in which evidence informs decision maker perspectives is a promising indicator that research may have a meaningful yet indirect role in decision-making. However, difficulty in measuring and observing conceptual use prevent drawing significant conclusions about frequency or quality. Finally, though political uses were rarely observed, there were multiple occasions in which symbolic use was observed in two of the three decisions and in larger district processes.

#### *Evidence on Research Evidence*

The second research question is a broader question about the types of research resources central office decision-makers use or consider useful. In interviews and observations of district meetings, including and beyond those used to analyze the three curricular and instructional decisions, administrators mentioned a number of sources of research (broadly defined). The researcher was careful not to define the term “research” in order to prevent biasing responses; rather, interviewees were asked what research resources they valued as a means of unearthing their conceptions of research as well as the tools they use to access it. Responses indicated that research resources ranged from widely read newspapers to issue-based websites to academic research books. Some examples include the Association for Supervision of Curriculum and Development (ASCD) website, the state university’s Center for Applied Linguistics, state technology conference, *School Teacher* (Lortie, 1975), *Education Week*, the state department of education, and the Education Commission of the States. In Table 1 I summarize the observed frequency of resource types<sup>4</sup>: [Insert Table 2 here]

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<sup>4</sup>Frequency by the number of individuals referencing these sources as well as the number of times they appeared in discussions I observed. Low frequency indicates it was only mentioned by one or two administrators, mid frequency indicates the source was mentioned by a few administrators and/or emerged in district meetings, and high frequency indicates it was mentioned by most or all administrators and/or figured prominently in district meetings. More detailed quantification of the references is deemed inappropriate because such figures would be misleading: for instance, determining whether to groups discussed particular resources as a single reference or reference for each individual, with no ability to determine whether each would have identified the reference independently or not.

Noticeable omissions from this list are district program evaluations and education research clearinghouses (such as *Education Resources Information Center* or the *What Works Clearinghouse*). In no interview did decision-makers mention formal evaluations of district programs. Rather, division heads indicated that they were primarily responsible for evaluating their own programs in their area. The Director of Curriculum and Instruction indicated a desire to focus more on evaluation but that her department lacked sufficient staff to do the data collection and analysis. The lack of reference to clearinghouses, designed specifically to support the use of research evidence in education, indicates that decision-makers either do not value or do not know about those resources.

In short, when decision-makers used research evidence in curricular and instructional decisions, they referred primarily to practitioner or professionally-oriented resources. Decision-makers did not make reference to specific articles, so further investigation of the type of research that informs decision-making is not possible.

#### *Evidence of Factors Shaping Use*

Literature on knowledge utilization, decision-making, and evidence-based decision-making offer empirical evidence about what factors may shape *what* and *how* evidence is used, categorized earlier as pertaining to characteristics of research, organizational context, and decision-makers. Analysis of data from in Hamilton School District demonstrated that several of these factors are influential in research use.

An immediately apparent pattern, noted earlier, is that decision-makers seem to prefer practitioner oriented sources over academic publications. Administrators with whom I spoke indicated that they frequently looked at resources pertaining specifically to their area of work. One decision-maker discusses her choices for finding research:

*ASCD is one of the ones, and I look at ASCD because I get it online every morning to see what's happening in the rest of the country, to find out what's what. ED Week, but a lot of that is looking at the front page, or the first couple pages, or whatever, because after you dig a little deeper. Professional journals, School Leadership which is one that comes out through administrative professional organizations and things like that. So they would probably, and a lot of those are focused around the same issues that we're dealing with right now.*

One explanation for the general preference for practitioner resources is suggested in the quote above: relevance. These resources may address issues that are more germane to the problems school districts currently face. In fact, knowledge utilization and evidence-based decision-making literature note that the lack of relevance is often a source for the disconnect between research and practice, with academic work failing to address issues salient issues in a timely manner or not addressing them at all.

Another facet of relevance influences not *what* research is used, but whether it is valued at all. One decision-maker points out limitation on using research to inform educational decisions:

*You can have all the research. If you do not understand how a child learns, and how that particular child learns and if you haven't worked with that child and does the child understand how they learn, and do you understand? And does the child know what to do to learn. If that piece isn't there, nothing's going to change.*

In this comment, relevance pertains not simply to whether research is on point with the educational issue in question, but rather its appropriateness for the individual student. Here we

not only see characteristics of research – in this case, relevance – as having an impact but also decision-maker values as well.

Evidence-based decision-making literature also identifies accessibility as a factor, and while district level decision-makers identified a number of mediums by which they access research, they also noted a major impediment: time. Given the complex roles and multiple responsibilities born by district administrators, it is no surprise that few decision-makers were able to search, read, and employ education research in their day-to-day work. However, several administrators acknowledge the value of such research and would “like to make it a greater priority”:

*Because I think sometimes in terms of the organization side, other districts that are equally large or larger have dealt with some of the issues of policies and whatnot and so just taking the time and say “Well instead of recreating the wheel, if I did some more research, or put aside time on this particular topic to research it, I might be saving myself work in the long run.”*

There are, however, some means of circumventing the problem of time. One district decision-maker emphasizes the value of technology, namely the Internet, in enabling her access to education research:

*But quite frankly technology and doing web searches is many times much more efficient than having to going through all these pages and what not, so that that would be a primary source to get information.*

She continues, recognizing that using the Internet has its problems, specifically expressing concern for the ability to find research to support *any* position on an issue:

*...I believe that with the access that we have to the web, that you can take a position on almost anything and you can either affirm it, or disclaim it. It's out there, and I guess the one that comes to mind is about standards based Math programs, and there are some ultraconservative websites that think they're terrible. And then you can go to these other websites, and they think they're wonderful. So it's sort of like, whatever your opinion is, we now have a resource to validate it. That's where we are, and a lot of that I think it was always there, but it's more accessible now because of technology.*

The consequences of this downside of technology may be confusion about which strategies or programs are, in fact, effective, as well as misuse of research to achieve preferred outcomes – a form of political use.

In addition to technology, the collaborative nature of district culture, as well as the roles and experiences of some decision-makers, have created a common practice of information-sharing across the central office. For instance, the Director of Research and Evaluation reads and summarizes research for the Superintendent, who like other administrators “doesn’t have the time to read all these studies”, and other decision-makers mentioned occasions on which she also provided them with research relevant to their areas of practice. In part this information-sharing is built into the structure of the organization (it is a responsibility of the Division of Research and Evaluation), but it is also a function of decision-makers’ personal experiences. Many decision-makers had completed or are currently working toward their doctorate degree, and several acknowledged the impact of their participation in these programs on their familiarity with research resources. Whether a product of organizational structure or decision-maker experience, the practice of information-sharing is fostered through the district culture of collaboration. For instance, decision-makers also mentioned occasions in which they shared information when they encountered research relevant to someone else’s practice.

From this discussion, two sets of factors must be teased out. First are factors that support and encourage research use in central office decision-making. The strongest case can be made for organizational culture, most notably the emphasis on collaboration which supports the sharing and dissemination of research, and the organizational structure, which created a position in which research use is part of the job description. It also appears that the wide range of mediums by which research can be communicated – including practitioner and professional publications as well as the role of technology – truly make research accessible to even the busiest of district administrators. Finally, it appears that decision-maker skills and experiences *can* support research use, particularly as it pertains to both their role in the organization and the opportunities to engage with research in higher education.

The second set of factors consists of those that constrain or even prevent research use in decision-making. Chief among these is lack of time. Most decision-makers recognized the value of going to the research for instrumental purposes, but often had no time. However, the missed opportunities to use research in the textbook and school improvement planning decisions do not seem to suggest time was an issue. For the textbook, organizational resource constraints – financial in particular – set the parameters for which publishers the committee would consider. Teachers’ disregard for the evaluation tool and the ultimate dismissal of the tool altogether, however, suggests decision-makers had other evidence on which to base their decision – their own experience and judgment. Members of the School Improvement Planning Committee appear to have used this same evidence when not explicitly utilizing research evidence to inform the set of instructional strategies available in the new plan. Therefore, it may be that research use is constrained not by the absence of time but rather the availability of alternative, perhaps preferable, evidence. The choice to use anecdotal or professional judgment over research is one, it could be argued, that reflects decision-maker values and the entrenchment of certain practices within the organization.

### **Conclusions and Implications**

This analysis reveals several important conclusions about research use in Hamilton School District, with meaningful implications for research, policy, and practice. First, evidence shows few direct, or instrumental, uses of research in district-level curricular and instructional decision-making. This translates to missed opportunities for districts to benefit from available research that potentially informs problem identification, offers lessons learned on program implementation, provides criteria on which to base choice among solutions, and perhaps most importantly, presents a range of solutions available to address educational problems. This last point warrants additional emphasis. Without the instrumental use of research in the search for or design of curricular and instructional solutions, districts are likely to reinvent the wheel each time they address a problem. Given financial, human resource, and time constraints, as well as the wealth of educational research produced to date, such practice is both inefficient and unnecessary.

Second, observed conceptual uses of research are promising. They suggest that educational research does indeed impact decision-making, if not in ways that are easily documented. However, research establishes that such use: “consists of something other than the accumulation of new information...conceptual use is a formative process in which evidence is acted on by the user. It is sorted, sifted, and interpreted; it is transformed into implications and translated into inferences” (Kennedy, 1984: 225). Furthermore, Kennedy (1984) argues that once the evidence is interpreted and inference is drawn, it is no longer the evidence but rather

those subjective interpretations that inform decisions. It is with hesitation that we should consider conceptual use of research in districts like Hamilton to be evidence of influence. Rather, significant research attention needs to be paid to understanding the mediating relationship between conceptual use, “working knowledge”, and the professional judgment by which many educational decisions are made.

The third conclusion pertains to symbolic use of evidence, observed primarily in the form of “research says” statements. Symbolic use appears to capture the *depth* of decision-maker engagement with research and, subsequently, the level to which the evidence actually informs the decision process. Symbolic use of research is therefore highly consequential for the potential impact of research on policy. Utilization of research in this way can confuse our understanding of evidence-based decision-making. Whereas it appears that educational research is informing decision, it is not necessarily the case. Rather, symbolic use may mask a lack of individual understanding of the research or its use for compliance or appearance only. The result is uninformed, and possibly inappropriate, decisions that affect children.

Findings presented here suggest that symbolic use may be a decision-maker capacity issue, requiring a revision of pre-service and in-service preparation of educational leaders. Evidence also points to organizational capacity. For instance, a lack of time to search for or access relevant research may mean that decision-makers find supporting evidence *after* the decision has been made, as this is less time consuming than searching for and considering all evidence up front. Similarly, this lack of time may result in the many instances of “research says”. Time is identified as the most critical factor, though mechanisms for circumventing the time issue have been noted (e.g. the internet, information-sharing practices). Still, it may be that in facilitating research use, these mechanisms actually support symbolic use. For example, relying on others for identification and interpretation of research is problematic, for the reasons identified in the conclusions about conceptual use. Similarly, using the internet as a tool for simplifying access is not without consequence, as a decision-maker noted above, for how that information is used (symbolically or politically). Again, the relationship between these issues and the practice of research use in education call for significant additional research.

Ultimately, these findings expose a weakness in current conceptualization of “use” as well as in its measurement. It is apparent that operationalizing “use” as reference to research evidence is insufficient in documenting its role in decision-making. Such simple measurement neglects the complexity of the process of use, which includes identification, interpretation, incorporation, and application of research findings. A more sophisticated understanding and operational definition of use is needed if we are to fully understand the impact of research decisions that shape teaching and learning.

A fourth conclusion that emerges from the evidence is that decision-makers expressed a preference for practitioner-oriented research resources. These practices reveal that decision-makers engage in, even prefer, what one might consider “technologically local” search, defined by Rosenkopf and Almeida (2003) as occurring when decision-makers use sources that offer expertise or information similar to their own knowledge. A critical reason for the continued gap between research and practice is that central office decision-makers use a limited set of resources which may not include all the pertinent or available literature. As such, researchers seeking to change the educational discourse, inform and improve practice, and ultimately bridge the gap must reconsider two dimensions of their practice: a) audience and dissemination and b) relevance to current needs. To effectively “get the word out”, researchers should consider publication in resources likely to be used by decision-makers – which includes print but in today’s context, may



include alternative media as well – and incentives (e.g. academic advancement) should be aligned to this goal. Additionally, decision-makers highlighted relevance and timeliness of research as reasons for preferring professionally-oriented publications, suggesting that literature found in other sources are not particularly salient to their needs. Whether or not this is in fact true is not of significance. Rather, if decision-makers perceive that, in general, educational research has no application to them, then efforts to prove otherwise should be made if research is to truly inform practice.

The findings of this study suggest directions for research and practice laid out above but are also consequential to the prospects for educational change. Observations of Hamilton School District reveal practice of “local” search, limited instrumental use of research, unclear conceptual use, and frequent symbolic use. What does this mean? These practices may mean that a) many potential solutions or directions for improving student learning are not identified or acknowledged, and b) the research that is identified may offer solutions that are not likely to differ substantially from current practice. If decision-makers’ continue to use the same “toolbox” to solve problems, an opportunity for meaningful change is passed over.

An important consideration, as evidenced in this analysis, is the impact of the organization – in this case the school district central office – on research use. If we are to draw conclusions about the relationship between research use, decision-making, and the prospects for meaningful educational change, then identifying the factors that support use, and subsequently opportunities for change and improvement, is critical. Most important is the identification of malleable factors, that is, those which we can shape through policy and practice. Decision-making in Hamilton School District reveals that the structure and the culture of the organization influence research use. In particular, decision-maker collaboration, information-sharing practices, and designated responsibilities for summarizing and disseminating research and evaluation create opportunities for decision-makers to utilize research in their curricular and instructional decision-making. An important direction for additional research, then, is to more deeply and systematically explore the structural and cultural characteristics organizations that influence research use in education. Such an endeavor will enable practitioners and policymakers to cultivate the positive factors and eliminate the negative, thereby enhancing their prospects for research-informed change.

In conclusion, the purpose of this analysis is to examine how research evidence is used in practice in school district central offices. Limited to the case of Hamilton School District, these findings may not generalize to the larger practices of central offices in the United States or elsewhere. However, this discussion unpacks decisions likely to be made in any educational context and reveals behaviors, constraints, and consequences related to the use of research – a practice increasingly expected of educational systems worldwide. In this sense the findings are instructive efforts U.S. and other national efforts. Finally, it is not the intent of the study to judge Hamilton or other similar school districts, but rather by bringing to light current practice, it creates transparency and an opportunity to improve. As such, this analysis serves as a call to action for both research and practice to further understand and improve the role of research evidence in school district decision-making for the improvement of teaching and learning for all.

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<i>Characteristics of evidence</i>	<ul style="list-style-type: none"> <li>• Source of evidence (internally or externally produced) (Caplan, et al, 1975; Fillos and Bailey, 1978; Kean, 1980; Weiss and Bucuvalas, 1977; (Supovitz and Klein, 2003; Corcoran, et al, 2001; Nelson, 1987, Kean )</li> <li>• Accessibility of information (Gross, et al, 2005; Corcoran et al 2001; Roberts and Smith 1982; West and Rhoton, 1994; Honig, 2003)</li> <li>• Format and complexity (Reichardt, 2000; West and Rhoton, 1994)</li> <li>• Relevance to policy or decision needs (Maynard, 2006, West and Rhoton, 1994, Supovitz and Klein, 2003)</li> <li>• Ambiguity of findings (March, 1994; Hannaway, 1989)</li> <li>• Whether findings are consistent with previous beliefs (Birkeland et al, 2005; Corcoran et al 2001; David, 1981; Weiss et al, 2005)</li> </ul>
<i>Characteristics of organizational context</i>	<ul style="list-style-type: none"> <li>• Organizational structure of central office (David, 1981; Hannaway, 1989; Meyer and Scott, 1983; Rowan, 1986; Spillane, 1998)</li> <li>• Organizational politics (Kerr, et al, 2006; David, 1981)</li> <li>• Demands on decision-makers limits time (Gross, et al, 2005; Supovitz and Klein, 2003; Wayman and Stringfield, 2006)</li> <li>• Culture and norms of decision-making (Rich and Oh, 1993; West and Rhoton, 1994; Corcoran, et al, 2001; Honig, 2003)</li> <li>• Financial or personnel capacity to search for and use (WestEd, 2002; Supovitz and Klein, 2003; West and Rhoton, 1994)</li> </ul>
<i>Characteristics of decision-makers</i>	<ul style="list-style-type: none"> <li>• Technical capacity to understand/apply evidence (Supovitz and Klein, 2003; West and Rhoton, 2004; Reichardt, 2000)</li> <li>• Pre-existing cognitive frameworks mediates interpretation and search for information (Kennedy, 1982b; Honig and Coburn, 2006)</li> <li>• Beliefs about forms of evidence and their value (Coburn 2001, Coburn and Talbert, 2006; Light et al, 2005; Corcoran, et al, 2001; David, 1981; Fillos &amp; Bailey, 1978)</li> </ul>

Table 2. *Research Resources Mentioned in Hamilton School District*

<b>Frequency</b>	<b>Source Referenced</b>
<i>High frequency</i>	Professional periodicals
	Professional organizations
<i>Moderate frequency</i>	Professional journals
	Conferences
	Advocacy, issue-based, or policy organizations
	Internet
	Leadership books
<i>Low frequency</i>	News periodicals
	Research organizations
	Academic books
	Academic journals
	Specific research studies