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## **Distributed Leadership Team Decision-Making**

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### **Introduction**

A central task of any school leadership team is decision-making. But what does the team decision-making process look like? What topics do they focus on in their meetings? Of the topics that are discussed, which require decisions and which do not? And what goes into the team decision-making process? Do teams conduct thorough, informed decisions or is decision-making haphazard and sporadic? In this paper, we lift the curtain on team decision-making just a little bit further.

Using an innovative data collection method in which leadership team members completed brief logs of their team meetings and decision-making processes, this paper examines the decision-making of 19 urban school leadership teams from the archdiocese of Philadelphia that were participating in a distributed leadership professional development project. The dataset includes almost 500 leadership team topics, of which they made decisions on just over 300 of them.

After describing the array of dimensions of leadership team topics and discussions, we focus on team decision-making itself. Informed by the literature on decision-making, we constructed a measure of quality decision-making and use it to look at the dimensions of team decisions. We found that different topics and different sources of topics produced different quality decisions.

## Literature Review

Team decision-making is a complex dynamic, with both attributes of decision-making and group dynamics at play. In this brief review of the literature, I describe research on both of these aspects of team decision-making.

Early models of decision-making processes often conceptualized a logical process of problem identification, analysis, and action. Drucker (1967) offered a decision-making model that contained five phases: 1) defining the problem, 2) analyzing the problem, 3) developing alternative solutions, 4) deciding on the best solution, and 5) converting the decision into action. Jackson (1975) suggested a five-step process consisting of: 1) formulating the problem, 2) interpreting the problem, 3) constructing courses of action, 4) decision making, and 5) implementation. Norton, Gustafson, and Foster (1977) similarly suggested three broad steps of: 1) identifying the cause of problems, 2) considering alternative solutions, and 3) implementing decisions. Bass (1983) identified three general phases of the decision-making process: 1) problem identification, 2) search and design, and 3) evaluation and choice.

Once the problem is identified and information related to it considered and analyzed, a range of possible alternatives or solutions are considered. Schweiger, Sandberg, and Ragan (1986) found that procedures designed to lead to a thorough consideration of alternatives, such as devils' advocacy or dialectic inquiry, can lead to improved decision quality. In an analysis of decisions in health-related organizations, Nutt (1984) found that decision processes were frequently organized around the search for alternative solutions.

Effective use of data is also considered to be an important part of group decision-making. Datnow, Park, and Wohlstetter (2007) found that collaborative examination of data by teachers was a central characteristic of high-performing school systems. The benefits of collaborative review of data are considered to include increased engagement of team members (Lachat & Smith, 2005; Love, 2000) and more thoughtful analyses of the data themselves (Steele & Boudett, 2009; Supovitz, Merrill & Conger, 2010, Supovitz & Morrison, 2011). Young (2006) conducted four longitudinal case studies of grade-level teams' use of data. She observed team meetings around both external (i.e. state test) and internal (i.e. student work) data and interviewed coaches, teachers, and administrators. She found that the teams were characterized by different levels of team cohesion and joint work and that the development of team norms and agenda setting facilitated or hindered their efforts to productively analyze data and incorporate it into their instruction.

Once potential or alternative solutions are developed, the next phase of an effective decision-making process is to identify an optimal solution. Hollingshead (1996) found that a comprehensive analysis of the potential consequences of decisions and the rank ordering of the consequences produced better decisions. Bourgeois and Eisenhardt (1988) argued that considering the likely outcome of any potential solution was critical to evaluating the effectiveness of possible solutions. Poole, Holmes, Watson, and DeSanctis (1993) found that before arriving at and agreeing on a decision, it was first necessary to analyze, elaborate, and evaluate prospective solutions. Finally, decisions must be converted into action, in terms of planning, delegation, and execution.

Decision-making in groups adds additional dynamics into this process. Briggs (1995) suggested that group decisions involve three activities simultaneously: information recall, information exchange, and information processing. Information recall is the surfacing of information relevant to the task. Stasser and Titus (1987) found that common information known to the group is more likely to be recalled than unique information known only to a few members. In information exchange, individuals are more motivated to defend or support their initial preference; so that information they subsequently choose to contribute often favors their initial position (Stasser & Titus, 1985). Hackman and Kaplan (1974) found that information contradicting the preferences of the majority is less likely to be exchanged. In the information processing phase, Petty and Cacioppo (1986) distinguished between two routes to a decision, the central route and the peripheral route. In the central route, members actively assess the information at hand and its quality and integrate it into their overall understanding of the situation and their preferences for a particular response. In the peripheral route, members' preferences are shaped by peripheral information, such as prior personal beliefs, or alignment with others arguing for a position, rather than attending to the information at hand.

Empirical studies of rational decision-making have also identified many challenges. Contextual factors played a big role in Argyris' (1976) cataloguing of a number of barriers to evidence-based decision-making. These included organizational barriers such as interdepartmental conflict, personal factors such as avoidance of uncertainty, personal ideology and cognitive rigidity, and political factors such as personal agendas and use of power. These and other factors lead to the distortion and manipulation of information and lack of open debate (Argyris, 1976). March (1978) developed the theory of bounded rationality to describe limits to rational decision-making. These limits included the lack of opportunity to access information and the inability to identify dependable strategies for solving the problem. Cohen, March, and Olsen (1975) developed a theory of the limits of rational decision-making called the garbage can model. They viewed decisions as 'organized anarchies', or situations in which there are problematic preferences, unclear technology, and fluid participation. They conceptualized the decision opportunity as a garbage can into which participants dumped various types of problems and solutions as they arose. Decisions then became the outcomes of a mix of problems, solutions, participant attention, and choice opportunities. The garbage can model is an example of a dynamic, interactive process in which we can see the role of data, but also the importance of contextual factors.

There are strong theoretical arguments to support the contention that organizations can benefit from structuring decision-making as a group, rather than individual, process. Researchers have argued that groups should produce better decisions than individuals for a number of reasons. For one thing, groups have access to a larger pool of information than do individual members (Hackman & Kaplan, 1974; Shaw, 1981; Steiner, 1972). Groups also have more capability to detect mistakes (Hill, 1982; Shaw, 1981). Further, groups collectively have a larger capacity than that of any individual member (Shaw, 1981). Dennis (1996) argues that individuals seldom have access to all relevant information and that group discussion enables members to deliberate on different interpretations of that information than that of any individual member. Maier (1967) noted that if those who must carry out the decision are involved in making the decision, then they will have increased commitment to implementation.

There is also a sense that people find comfort in the group process. Organizational theorists have suggested that individuals tend to navigate uncertain environments and complex activities collectively. March and Olsen (1975), for example, viewed collective processes as one way of dealing with uncertainty and ambiguity. Daft and Weick (1976) portrayed decision-making in organizations as a group of decision-makers scanning the environment for information, collectively making sense of the information, and converting it into organizational action. Kim (1993) viewed the development of shared mental models as a key process of developing organizational learning. Research on policy interpretation and sense-making further suggests the importance of collective sense-making. Spillane (1999) found that individuals use group activities to make sense of information and interpret policies.

Much of the growing theory of distributed leadership is based upon the idea that decision-making in schools is conducted by changing configurations of groups engaged in various levels of group decision-making. Spillane and colleagues have written extensively on the distributed perspective of leadership. In this view, leadership arises not from formal title or responsibility, but rather out of the interactions amongst individuals, tasks, and situations (Spillane, 2006; Spillane, Halverson & Diamond, 2001; Spillane, Hallet & Diamond, 2003). In this view, leadership is not exclusively positional but is rooted in the act of exerting influence over others in particular situations. Schneier and Goktepe (1983) similarly define such informal leadership as influence over other group members. Research from organizational sociology indicates that members who are not the group's formal leader have a strong influence on group processes, norms, and outcomes (Bass, 1990; Wheelan & Johnston, 1996). Pescosolido (2001) argues that informal leadership that develops within a group plays a key role in defining groups' sense of efficacy.

Decision researchers have found that effective decision-making can result in reduced costs and increased efficiency, both hallmarks of high performance (Fredrickson & Mitchell, 1984; Eisenhardt, 1999). Summarizing three decades of previous research, Goll and Rasheed (2005) noted that individual characteristics of team members influenced team functioning, which in turn impacted decision processes and organizational performance. Their own empirical work confirmed this view, and added the importance of environmental factors as a moderator between decision-making processes and organizational performance. Similarly, Carmeli, Sheaffer, and Halevi (2009) found that participatory decision-making among top management teams was correlated with decision effectiveness, which in turn was highly correlated with firm performance. In a simulation experiment conducted with teams of business school students, Kunc and Morecroft (2010) found the variation in team decision-making processes had a substantial impact on firm performance, even when firms started with identical information and equal resources.

Drawing on this research, we argue that good group decision-making processes have several observable characteristics, including:

- Clear definition of the problem
- Collection and examination of data related to the problem
- Identification and consideration of alternatives

- Adequate and collegial discussion of the issue
- Reaching a decision which is the best reasoned alternative of those considered
- Assigning responsibility for implementing the decision
- Following up on the decision to see it is enacted

## **Study Context**

The study was conducted as part of research on the Distributed Leadership (DL) Project in the Archdiocese of Philadelphia. The DL Project is delivered by the Penn Center for Educational Leadership (PCEL) at the University of Pennsylvania. The DL project is a year-long professional development program for school leadership teams, with additional followup. School faculty members apply to join the DL team, which is typically composed of the Principal, assistant or vice principal, and 2-4 other teachers in the school. Once the team was selected, the DL Project provided extensive training for team members over 12 months on such topics as the theory of distributing leadership, developing a shared vision and mission, effective team functioning, data analysis and decision-making, leadership in literacy and mathematics, and peer coaching. The teams were charged with identifying and prioritizing school needs, defining the leadership work necessary to address those needs, and establishing a system to monitor their progress. To focus their work, each team member was required to develop an action plan that stated explicit goals, strategies, and milestones for leading their chosen aspect of instructional reform in their school. Team members received modest stipends for their work for two years.

To support the leadership teams, the DL Project partnered each school with an on-site coach who attended team meetings and conducted other support work for about 10 hours a week. The coaches were usually experienced, retired school principals. Teams also received discretionary funds to provide professional development to their school faculty on topics of their choice. While an instructional focus was the non-negotiable focus of the project, team members were given wide latitude to define this in a way that made sense for their school's context and their analysis of their school's needs. Thus, an important component of the PCEL model was that the focus of the efforts of the teams were locally, rather than externally, generated.

In its first year of implementation with the Archdiocese of Philadelphia, the DL Program invested in ten elementary schools (cohort 1). The second year brought a new cohort of nine schools, five elementary and four high schools (cohort 2), within the Archdiocese for a total of 19 parochial schools (15 elementary and 4 high schools).

## **Instruments**

The data for this paper come from two survey sources, a leadership team log and a follow-up survey. The Leadership Team Log records team member reports of the content of their leadership team

meetings that were collected during three five-week windows (October, January, April/May) during the 2011-12 school year. At each of the designated time points, each team member was asked to complete a short on-line log within 24 hours of the team's meeting. To support survey completion, the research team worked with the DL teams to find out when during the week were their regularly scheduled meetings and send email reminders immediately following the meeting and again 24 hours later.

The leadership team survey is a more global follow-up survey conducted at the end of the school year. Both instruments are described in more detail below.

### **Log Data**

The log was very succinct, taking only about five minutes to complete. It focused on three major meetings topics, which were identified by each team member. For each topic, we asked six questions:

- (1) Who was leading the during that topic
- (2) The primary purpose of the topic, from a list (strategy, planning, information sharing, dissemination, monitoring, evaluation, other)
- (3) The reason for discussing the topic, from a list (arises from leadership team, arises from school, DL program requirement, external to school, other)
- (4) Whether the topic required a decision and whether the team arrived at a decision for the topic (Yes, No, No decision required)
- (5) What was the decision (open-ended)
- (6) The dimensions of the decision (Were alternatives considered? Did you use data? Was their adequate discussion? Was their unanimous agreement? Was there someone assigned to enact the decision? Was a timeline for follow up created?)

### **Follow-up Survey Data**

The follow-up survey was conducted in June at the end of the 2012 school year. The survey asked about individual team member demographics and a series of questions about school conditions and team characteristics and functioning. In this paper, I use two sets of items, combined into team-level survey scales. These are:

1. Team Collaboration - (alpha reliability = .91) was an eight-item scale that measured team members' perceptions of their collaboration with each other.
2. Press - (alpha reliability = .86) was a four-item scale that measured the extent to which leadership team members feel that their school has high expectations for students.

### **Data and Analysis Plan**

Each of the Distributed Leadership teams met weekly throughout the course of the year. In three five-week windows across the year we asked team members to complete the leadership log. Based upon this

data collection, the initial dataset consisted of 1,525 individual records from 19 schools in over 15 weeks.

Our first task was to code the topics into a streamlined set of topics. We went through each individual record and classified each topic into one of 11 topical categories (see Table 1 for a list of the topics and examples of what these topics consisted). Next, we reduced the individual level data to team level data. We did this by selecting the (at most) three major topics reported by team members. In some cases, team members had some disagreement about the topics, with different members reporting different topics. In these cases we stuck with topics that were reported by multiple team members. This data reduction resulted in 490 records for 19 teams over 15 weeks.

The first part of the results section of this paper reports simple descriptive statistics on key components of the survey, including the topics teams discussed, the purposes for their discussions, the sources of their topics, the proportion of topics that resulted in decisions, and the dimensions of their decisions.

Guided by the literature on decision-making, we developed a scale of quality decisions that included seven aspects of decision-making. These included: (1) had adequate discussion; (2) used data; (3) considered alternatives; (4) came to a unanimous decision; (5) assigned responsibilities following the decision; (6) planned to follow up on the decision; (7) had a timeline for the follow up.

The second component of the results section employs two-level modeling (decisions nested within teams) to examine whether different topics and different topic sources produced different quality of decisions. For this and subsequent models I report the fixed effects and covariance parameters (random effects). I also report the intraclass correlation (ICC) for each full model to show how the variation is distributed across the different levels. I do not report the ICCs of unconditional models, as I am not primarily interested in the amount of pre-existing variation in outcome measures.

## **Results**

The results section contains two subsections. First, we report descriptive statistics on the contours of DL teams' decision-making processes. These include the topics of team discussions, the purpose of team discussions, the source of team discussion topics, the proportion of topics for which teams made decisions, and the characteristics of those decisions. Second, using multi-level modeling in which decisions are nested within teams, we examine the relationship between different sources of team discussion topics and decision quality and the relationship between different purposes of team discussions and decision quality.

### **Topics of Team Discussions**

Team members reported discussing a variety of topics in their team meetings. To organize the diversity of the topics, we organized them into eleven categories, which are listed in table 1. The most commonly discussed topics were faculty professional development and team member action plans, each of which



were discussed 16% of the time. Looking a variety of data sources, including student performance data, and faculty and student survey data, represented about 14% of the topics discussed in leadership team meetings. Instructional materials and assessment tools like rubrics and student journals were also a frequent topic of discussion during leadership team meetings. Additionally, about 10% of the meeting topics were dedicated to team member professional development. Other important, but less frequent, topics included discussing school culture and norms and parent outreach.

Table 1. Topics of Team Discussions

Category	Examples	Frequency	Percent
(1) Faculty Professional Development	Plan, discuss, and debrief a variety of professional development activities for all and subsets of school faculty.	78	15.9
(2) Action Plan	DL project action plans to identify goals and strategies to influence instruction in the school.	78	15.9
(3) Developing/Looking at Data	Examining student performance data, faculty and student surveys, report cards, data walls.	66	13.5
(4) Instructional/ Assessment Tools	Discussions of instructional materials, rubrics, student journals.	66	13.5
(5) Planning/Debriefing Meetings	Discussions of faculty meetings, grade level meetings, breakfast clubs,	61	12.4
(6) Developing Selves	Book/article discussions, trust workshops, team development, discussions of peer coaching and classroom observations.	46	9.4
(7) District Issues/Initiatives	Common Core State Standards workshops, Understanding by Design workshops, Middle States Accreditation, School closings/mergers	32	6.5
(8) Mission/vision	Goal setting; discussing and setting mission/ vision for team, departments, and/or school.	26	5.3
(9) Planning School Events	Speaker series, science fair, heritage day,	21	4.3
(10) School Culture/Norms	Faculty morale, student engagement, expectations for study halls, expectations for students	9	1.8
(11) Parent Outreach	Home and school association meetings, communicating grades to parents	7	1.4
TOTAL		490	100.0

**Purpose of Team Discussions**

On the leadership team log we also asked team members to describe the purpose of each topic. As can be seen in Table 2, about 30% of the topics that were discussed were for sharing information. Another 30% were focused on coordination or planning of decisions the team had already made. Importantly, team members reported that 16% of the topics they discussed were strategic discussions about the best course of action to attain a goal. Less frequent topics of discussion were monitoring team actions or

initiatives (9% of topics discussed); dissemination of information (7% of topics discussed); and evaluation (6.5% of topics discussed).

Table 2. Purpose of Team Discussions

Category	Examples	Frequency	Percent
Information sharing	Exchange of information amongst team members about a particular topic, individual, or event.	147	30.0
Coordination or planning	Identifying the action steps needed to pursue a strategy or decision that the team already made.	145	29.6
Strategy	Determining the best course of action to attain a goal, address a problem, or meet a need identified by the team.	80	16.3
Monitoring	Discussion of the progress or status of team (or team member) activities or initiatives.	43	8.8
Dissemination	Passing along of information from one team member to the rest of the team.	34	6.9
Evaluation	Discussion of the quality or impact of an event (e.g. professional development session), program, or initiative. (e.g. "how did the October 1 staff development day go?")	32	6.5
Other		9	1.8
TOTAL		490	100.0

### Source of Topics

Of the 490 topics that were discussed, over a third of them came out of interests of the DL team members, as shown in Table 3. Just under another third, or 137 of the topics, were requirements of the DL project. These were mostly Action Plan items and other aspects of the teams’ work that were initiated by the DL project. Another 69 topics, or 14% of all topics that were discussed, came from within the school, but were external to the DL team. Ten percent of topics that were discussed by the leadership team came from external requirements, while another 10 percent were responses that could not be easily categorized in the other sources, usually because they were too vague, like “issue that arose” or “info for team” or “needed more defining.”

Table 3. Source of Topics

Category	Frequency	Percent
Arises from leadership team	180	36.7
Requirement of the DL Program	147	30.0
Arises from within the school but external to leadership team	69	14.1
Other	48	9.8
External requirement (district, state, federal, etc.)	46	9.4
TOTAL		490
		100.0

**Team Decision-Making**

From these topics, we asked team members to indicate whether the topic required a decision. As shown in Table 4, 75% of the topics discussed required a decision, and the teams made decisions in 83% of those cases. In 25% of the topics that were discussed, no decision needed to be made.

Table 4. Team Decision-Making

	Number	Percent
Decision Made	305	62.2
No Decision	64	13.1
Not Applicable (No decision needed to be made)	121	24.7
<b>TOTAL</b>	<b>490</b>	<b>100.0</b>

**Decision Dimensions**

Table 5 shows the different dimensions of decisions that were examined in the leadership team log. For virtually every decision, team members reported that they had adequate discussion (98% of decisions) and that the decision was unanimous (96% of decisions). Most decisions were also followed by the assignment of someone to be responsible for implementing the decision. In roughly three quarters of the decisions, there was also planned follow up and a timeline for completion. In only about half of the decisions (56%) did team members report using data. The least common decision element was the consideration of alternatives before the decision was made; this occurred in only a third of the decisions reported by leadership teams.

Table 5. Decision Dimensions (n=305)

	Frequency	Percent
(1) Adequate Discussion	298	97.7
(2) Unanimous Decision	293	96.1
(3) Assignment of Responsibility	270	88.5
(4) Timeline	238	78.0
(5) Planned Follow Up	233	76.4
(6) Used Data	173	56.7
(7) Considered Alternatives	101	33.1

Based on these data, I constructed a variable called “decision quality” which represented the percentage of these seven indicators that made up each decision. The mean decision had 74.8% of these indicators, with a standard deviation of 18%. Two decisions, or less than 1% of the 305 decisions, had none of these seven qualities, while 49, or 16% had all seven of these qualities.

**Predictors of Quality Decision**

The final analyses we conducted examined whether different topic sources had different quality decisions associated with them and whether different discussion purposes similarly had different quality decisions associated with them. To do this, we constructed a series of models that predicted decision quality. Informed by our conceptual model, we also included independent variables to control for both the contextual factor of academic press and the team background factor of collaboration.

Table 6 shows a series of models that predict decision quality. Model 1 is a base model that contains no predictors, but parses the explainable variation into team level variation and all other variation, or residual variation, of which at least some of this is decision-level variation. From this model we can see that the lion’s share of the variation is at decision/error level, with only about five percent of the variation occurring at the team level. Thus, most of the variation in decision quality is not associated with team level differences.

Model 2 shows two team level variables in the model. These are academic press and team collaboration. Interestingly, academic press is significantly and negatively related to quality decisions. Every one unit increase in academic press is associated with a 7% decline in the quality of the team’s decision-making. This negative relationship between academic press and quality decisions is present in all subsequent models as well. This suggests that higher academic aspirations causes tension in team decision-making that may result in lower quality decisions.

Table 6. Models predicting decision quality.

	Model 1: Null Model			Model 2: Base Model			Model 3: Source of Topic			Model 4: Purpose of Discussion		
	β	SE	ICC	β	SE	ICC	β	SE	ICC	β	SE	ICC
<u>Fixed Effects</u>												
Intercept	.740***	.015		.993***	.181		.996***	.195		1.022***	.181	
Academic Press				-.070*	.025		-.075*	.027		-.067*	.025	
Collaboration				.020	.027		.030	.029		.023	.027	
Source of Topic							-.010	.010				
Purpose of Topic										-.021**	.007	
<u>Covariance Parameters</u>												
Team	.002	.003	.06	.001	.001	.03	.001	.001	.05	.001	.001	.02
Residual	.034***	.001	.94	.034***	.003	.97	.030***	.003	.95	.030***	.003	.98

~  $p \leq .10$ , \*  $p \leq .05$ , \*\*  $p \leq .01$ , \*\*\*  $p \leq .001$ ;

Models 3 in table 6 show the effects of adding the source of topics (ie from the team, from the school, as a program requirement, or as an external requirement). This variable was not statistically significant, foreshadowing little differences in the mean quality decision of these different topical sources.

Table 7 shows the adjusted means of the decision quality for each of the different sources. The reference group in these comparisons is topics that arise from within the leadership team. These means are compared with those that arise from the school, that arise from DL program requirements, and that

arise from external requirements. As shown in Table 7, the only statistically significant difference in these comparisons is the quality of decisions that arise within the leadership team ( $\mu = .758$ ) and those that arise external from the school ( $\mu = .675$ ), with the within leadership team decisions being significantly higher.

Table 7. Pairwise comparisons of sources of topics

	Source Mean	Arises from with the leadership team (mean)	Mean Difference	Standard Error	p-value
Arises from within school, but external to leadership team	.764	.758	.006	.031	.833
Requirement of DL Program	.752	.758	-.006	.025	.805
External Requirement	.675	.758	-.082	.040	.040

In Model 4 of Table 6, the purpose of the topic was added to the school and team covariates (academic press and collaboration). In this model, we see a significant and negative relationship. Other than presaging a difference between different topics, it is hard to know how these topics are different until we look at adjusted means for each topic. The adjusted means are shown in Table 9.

Table 9. Pairwise comparisons of purpose of topics

	Source Mean	Coordination or planning	Mean Difference	Standard Error	p-value
Strategy	.772	.773	-.001	.027	.987
Information sharing	.675	.773	-.062	.028	.031
Dissemination	.711	.773	-.102	.058	.080
Monitoring	.671	.773	-.078	.038	.039
Evaluation	.695	.773	-.064	.047	.171

Table 9 compares the quality of decisions of coordination/planning decisions to the quality of decisions of other topics. Not surprisingly, decisions about coordination/planning were the highest quality decisions, since in many ways they would seem the most mundane decisions teams were likely to make. The results in Table 9 show that coordination/planning decisions were not of significantly different quality than strategy or evaluation decisions, but were significantly higher than information sharing decisions, monitoring decisions, and dissemination decisions (at the .10 level).

## Discussion

Decision-making is an 'in the moment' activity that is difficult to capture in any kind of systematic way. To try to gain insight into leadership team decision-making, we developed an innovative on-line logging system that asked participants in a leadership team development initiative to complete a brief on-line survey immediately after their leadership team meetings. Using this logging strategy, we collected data on 490 leadership team decisions that occurred in three 5-week windows (fall, winter, spring) in the 2011-12 school year.

From these data, we found that faculty professional development, team member action plans, data analysis, and discussing instructional tools and materials were the most frequent topics of team discussions. When we organized the topics by purpose, we found that information sharing and coordination/planning were the most frequent purposes of team discussions. We also found that most of the topics teams discussed arose from the team or program, rather than externally (school or district). This suggests that team agendas were controlled by the teams themselves, rather than driven by external forces.

Of the 490 topics discussed, the teams reported that 369, or 75%, required a decision. Of the 369 topics requiring a decision, a decision was made in 305, or 83%, of them.

For the 305 decisions, we looked at team reported dimensions of these decisions. We were surprised at how highly rated were many of the dimensions of decision-making. Only 'using data' (in 56% of decisions) and 'considering alternatives' (33% of decisions) were reported to have occurred relatively infrequently. All the other decision dimensions were done in at least three quarters of the cases. This left us wondering if this was due to the self-report nature of the data collection or whether there were other dimensions of decision quality that we should consider incorporating in subsequent data collection efforts.

Finally, we looked to see if different sources of topics and different purposes for discussion were associated with different quality decisions. Focusing on the sources of topics, we found that external requirements were associated with lower quality decisions than were topics that arose from the leadership team. When we examined the purpose of topics, we found that the highest quality decisions were made for topics associated with coordination/planning. Further, we found that these coordination/planning decisions were of significantly higher quality than were decisions about monitoring and, surprisingly, information sharing. This result could be driven by the lack of considering alternatives and using data for decisions about information sharing, which teams may have considered unnecessary.

Even so, these analyses are just a start. There is so much more to explore. First, we made the decision to aggregate these data to the decision-level, but there is much individual leader level data still to be analyzed. Second, we treated all of these decisions as essentially occurring at the same time, but there is a whole temporal layer to explore. Were decisions the same over time? Or were certain types of

decisions made at some times and others at other times during the school year? More exploration is warranted.

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