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Enhancing Capacity to Improve Student Learning

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Professional development provides a means to build capacity among school personnel when it is delivered as part of a systematic, long-term approach to school and teacher improvement. This research examines a sustained, diocesan-wide professional development model, called the ACE Collaborative for Academic Excellence, that aims to build capacity for school improvement. It utilizes a framework modeled on the pillars of the Alliance for Catholic Education that targets three areas: teacher, group, and vision capacity. An analysis of participant survey data probes the extent to which teacher, group, and vision capacity are enhanced in this model and suggests several ways this professional development model and others can be strengthened to effect lasting change in Catholic schools.

Good teaching and strong school leadership favorably impact student achievement (Darling-Hammond, 2000; Marzano, 2007; Leithwood, Louis, Anderson, and Wahlstrom, 2004). Teacher effectiveness is the most influential school-level factor in generating positive student outcomes (Darling-Hammond, 2000; Marzano, 2007), while "leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school" (Leithwood, Louis, Anderson, & Wahlstrom, 2004, p. 5). Because these factors are so critical to student outcomes, opportunities for strengthening instructional and leadership capacities are important. High-quality professional development provides a means for doing so.

Professional development is most effective when it is delivered as part of a systematic, long-term approach to school and teacher improvement (Darling-Hammond & Richardson, 2009; Garet, Porter, Desimone, Burman, & Yoon, 2001). Yet one-shot workshops remain a common form of professional development even though participants report little meaningful change in their classroom practice (Garet et al., 2001).

The ACE Collaborative for Academic Excellence is a sustained, systematic approach to professional development that promotes academic excellence in a diocese through coherent curriculum development, strong instructional practice, and data-informed decision making. The aim is to support a diocese in its curriculum development and its teachers in the curriculum implementa-

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tion. Program staff work closely with diocesan administrators, principals, and teachers for two years as they learn and begin to implement new language and structures for curriculum, instruction, and assessment. The program continues after the two year intervention facilitated by trained diocesan personnel, who remain supported by program staff and online resources. Through its emphasis on developing coherent curricula across grade levels, strengthening teacher knowledge and skills, fostering teacher collaboration within schools and between grade-level colleagues across the diocese, and promoting a culture of continuous improvement, the ACE Collaborative helps enhance teacher, group, and vision capacity in the schools of its partnering (Arch)dioceses.

These three areas, teacher, group, and vision capacity, form the ACE Collaborative framework for capacity building. Through an analysis of participant survey data, this article probes the extent to which teacher, group, and vision capacity are enhanced in the ACE Collaborative model, and suggests several ways this professional development model and others can be strengthened to affect lasting change in Catholic schools.

Literature Review

Teacher development has been identified as one of the keys to school improvement (Borko, 2004; Darling-Hammond, 1993; Desimone, 2009) and decades of research have sought answers to the question: What constitutes effective professional development? Loucks-Horsley and Matsumoto (1999) contend that effective professional development must have sound practices in four areas: program content, processes, strategies and structures, and contexts. They also note that while it is important to attend to some combination of these factors, there is no agreement on a uniform design for doing so. Assessing needs and then setting goals can lead to the best combination of these elements to accommodate each unique teacher learning situation. Garet et al. (2001) examined the effects of different characteristics of professional development on teachers' learning by analyzing a large national sample of math and science teachers. They found three core features that positively influenced teachers' knowledge and skills and change in classroom practice: focus on content knowledge; opportunities for active learning; and coherence with other learning activities. They also found that such structural features as the form of the activity, collective participation, and duration of the activity have indirect effects on teacher learning through these core features. Built from the theoretical constructs employed by Garet et al. (2001), Penuel, Fishman, Yamaguchi,

and Gallagher (2007) added the role of context as an important consideration in science education professional development. They noted that participants bring their given contexts to professional development and contextual elements such as school philosophies, prioritized initiatives, planning time, and availability of materials can impact a teacher's application of a new innovation.

No matter how effective the professional development is in theory, it needs to be linked to student learning in an educational setting in order to affect real school change (Guskey, 1997).

How Is Professional Development Related to School Change?

The goal of professional development is to affect school-level change. However, the change process is "highly complex, multivariate, and dynamic" (Hall & Hord, 2006, p. 4). It simply takes time for individuals and organizations to understand an innovation and then apply it with skills and competency. Hall and Hord (2006) indicated that most changes in education take three to five years to be implemented at a high level. Change from professional development requires patience and persistence, and educators need to understand this change process and evaluate the factors influencing it.

Fullan (1985) suggested going beyond theories of *change* (what factors explain change) to theories of *changing* (how change occurs, and how to use the new knowledge acquired during the changing process). Educational change is "a dynamic process involving interacting variables over time" (Fullan, 2007, p. 86). The three main categories of factors affecting implementation are identified as characteristics of change (i.e., need, clarity, complexity, and quality/practicality), local factors (i.e., district, community, principal, teacher), and external factors (i.e., governments, teacher preparation, professional learning).

What Constitutes Effective Professional Development?

Previous studies of teachers' professional development center on two primary questions: What elements constitute effective professional development? How does professional development work to improve teaching and learning (Desimone, 2009; Garet et al., 2001; Loucks-Horsley & Matsumoto, 1999; Wallace, 2009)? According to Guskey and Sparks (1996), multiple elements influence the quality of professional development and its effects on student learning, including program content, structure and format of delivery, and the context

in which implementation occurs. In a comprehensive review of professional development research in the United States and abroad, Darling-Hammond, Chung Wei, Andree, Richardson, and Orphanos (2009) found that professional development is most effective when it is intensive and sustained over an extended period of time, involves participants in collaborative learning, and empowers teachers to take part in school decision making.

Professional Development in Catholic Schools

Professional development is as critical a tool for Catholic school personnel as it is for public school personnel but research on its implementation and effects on teacher and student outcomes in Catholic schools is limited. Lucilio (2009) identified the different professional development needs among secondary teachers, school administrators, and diocesan administrators using a midwestern Catholic diocese sample. The data suggested that professional development was most effective when it was implemented school-wide, delivered in half-day or all-day sessions (as opposed to more abbreviated sessions), and focused on instructional strategies. Also, participants cited hands-on participation and demonstration as the most beneficial in-service methods, and training and mentoring as the most likely methods to improve teacher performance.

In another study, Kuchey, Morrison, and Geer (2009) used Guskey's 5-level evaluation model to examine a two year professional development program for science and math teachers in Catholic elementary schools. They found positive reactions among the participants, increased learning among participants, and enhanced teacher efficacy, as well as marked increases in the application of effective pedagogy in math and science evidenced by the participating teachers' lesson plans. However, the impact on student learning outcomes was less consistent and varied by grade level.

Lucilio (2009) stated that most dioceses lack well-articulated, systematic approaches to the professional development of Catholic school teachers and administrators. In addition, because Catholic school budgets rarely allow for hiring support staff or funding teacher release time, Catholic school teachers often lack adequate time to engage in meaningful professional development. Moore (2000) summarized several obstacles to effective professional development in Catholic schools, highlighting factors such as the heavy burden of daily tasks on individual teachers, teacher isolation, and limited communication be-

tween teachers and with administrators. Developing systematic professional development for Catholic school teachers and administrators and researching outcomes would seem to be a pressing need for Catholic dioceses.

Capacity Building

Capacity building has been readily seen in the research literature as a means to educational reform (Edvantia Research Group, 2005; Fullan, 2007; Newmann, King, & Youngs, 2001; O'Day, Goertz, & Floden, 1995). O'Day et al. (1995) define capacity as "the ability of the education system to help all students meet more challenging standards" (p. 1) and identify four areas where capacity can be enhanced to strengthen reform efforts: teacher performance, resource availability, organization of work, and delivery of professional development services. Furthermore, they argue that while teacher capacity is an essential factor for educational change, other factors that collectively constitute organizational capacity (e.g., school context, leadership, vision and community) are also critical to affect change in the classroom. Anfara and Mertens (2012) build on this notion that teacher capacity is influenced by other complex factors, and summarize what they see in the research literature as five common areas for capacity building: teacher knowledge, skill, and disposition; professional communities; program coherence; technical resources; and leadership. Newmann et al. (2001) argue that "professional development is more likely to advance achievement of all students in a school if it addresses not only the learning of individual teachers, but also other dimensions of the organizational capacity of the school" (p. 2).

Indeed, the literature on capacity building helps to answer the two central questions in the professional development literature discussed earlier (how is professional development related to school change, and what constitutes effective professional development?). It seems that professional development is more effective and ultimately has greater potential to affect educational change when it can enhance the capacity of teachers, administrators, and schools; that is, increase the collective power in the school (Fullan, 2005) through the development of skills and motivation in order to strengthen student learning outcomes.

ACE Collaborative Conceptual Framework

ACE Collaborative and Capacity Building

The ACE Collaborative model of professional development addresses common areas of capacity building within a framework of three pillars. The ACE Collaborative is one of many programs in the Alliance for Catholic Education (ACE) at the University of Notre Dame. All ACE programs are shaped by three pillars: professional teaching, community, and spirituality. These three pillars provide a framework for the ACE Collaborative's efforts to enhance capacity within a diocese to improve student learning. The professional teaching pillar addresses teacher capacity, the community pillar addresses group capacity, and the spirituality pillar addresses vision capacity.

The Professional Teaching Pillar—Enhancing Teacher Capacity

The underpinning of the professional teaching pillar is that excellence in educational practice requires a commitment to professional growth. Professional development has the potential to impact teacher growth and effect change especially if it is sustained and focused on teachers' knowledge, instructional practice, and student learning (Darling-Hammond et al., 2009). The ACE Collaborative enhances teacher capacity by providing professional development to strengthen knowledge and skills and does this in several key areas: It introduces a differentiated unit structure to teacher planning; emphasizes student-centered classroom instruction; and encourages the use of systematic formative assessments and differentiated summative assessments.

Planning. The ACE Collaborative proposes that instruction is best served in the context of units that are carefully scaffolded, develop critical thinking, and are differentiated to serve the needs of both struggling learners and high-achieving learners. A major component of the program is a nuanced unit planning model (Doyle, n.d.) in which each unit of instruction is focused on an enduring understanding (Wiggins & McTighe, 1998) and framed by Marzano's (1992) three dimensions of learning: acquiring and integrating knowledge; extending and refining knowledge; and, using knowledge meaningfully.

Instruction. Learning new knowledge, applying it to practice, and reflecting on results with colleagues are beneficial professional development practices (Darling-Hammond & Richardson, 2009). The ACE Collaborative supports this approach. The program introduces active learning strategies and promotes

Chart 1: Key Elements to the ACE Collaborative for Academic Excellence

Focus	Approach	Means	Metrics
Enhancing Teacher Capacity	Strengthening knowledge and skills	Professional development that introduces • a differentiated unit structure • strategies for student-centered classroom instruction • emphasis on use of formative assessments and differentiated summative assessments • use of data for instructional improvement ¤ teacher observation data ¤ student data	Effective instructional practice Improved student achievement
Enhancing Group Capacity	Encouraging collaboration	• Provision of a common language and structure • Promotion of teacher teams for constructing a coherent K–12 diocesan curriculum • Establishment of a wiki site for online collaboration • Encouragement of shared instructional leadership	Team cooperation in implementation of new curriculum Improved student achievement
Enhancing Vision Capacity	Promoting a culture of continuous improvement	Encouragement of principals to • articulate an expectation of excellence • schedule time for teacher teams • promote teacher collaboration • support shared instructional leadership	A vision embraced by all school personnel Improved student achievement for each child

student-centered classroom instruction to advance a clear learning objective. It encourages brief walk-through classroom visits by principals and colleagues so that data can be gathered, reviewed over time, and used to improve practice. In a study of a large urban area, Kelly (2010) found that Catholic school teachers were less likely to report the use of developmental instruction (i.e., student-

centered instruction, specifically the aspect of incorporating student interests and ideas) than public school teachers and suggested that this might be due to less exposure to such practices in their educational training and/or prior experiences in having been taught in a more directed style when they were students. The ACE Collaborative introduces student-centered instructional practices that may be less familiar to Catholic school teachers and encourages them to incorporate these practices.

Assessment. Assessments work best as part of a coherent system providing multiple, varied, and valid measures of learning (Herman, 2010). The ACE Collaborative recognizes the importance of alignment between learning outcomes and diverse assessments that inform instructional practice and evaluate student learning. As such, the program introduces a variety of formative assessment strategies, the idea of two summative assessments during a unit instead of one, and data-based decision making in the classroom.

Each of the topics that the ACE Collaborative introduces is carefully scaffolded to support teachers as they bring about change in their practice. Two annual week-long summer workshops and annual fall and spring visits for follow-up professional development days provide on-site professional development while ongoing feedback on curriculum development and online resources further support the work of diocesan teachers. Research shows that teachers feel their needs for professional development in curriculum, instruction, and assessment are being met through the ACE Collaborative offerings (Wei, Doyle, & Lamphier, 2011).

A focus on individual teacher knowledge, skills, and dispositions must advance the collective work of the school (Newmann, King, & Youngs, 2001; O'Day, Goertz, & Floden, 1995). If this does not occur, success might be evident in limited settings but overall, learning improvement cannot be sustained. For this reason, enhancing group capacity is also critical.

The Community Pillar—Enhancing Group Capacity

Community is a commonly recognized strength of Catholic schools and an ideal that can inform all aspects of school life, including curriculum work and instructional practice. It is framed by the belief that individuals are called upon to support and challenge one another for the betterment of the whole. Building on the premise that each member is a vital contributor to the whole, collaboration and colleague interaction are at the heart of the ACE Collaborative. We use the term *group capacity* to refer to the dimensions of organizational ca-

pacity that deal with collaboration among teachers and between teachers and administrators. The ACE Collaborative enhances group capacity by promoting collective efficacy in several ways: It introduces a common language and structure for facilitating curriculum conversations; it fosters the contributions of all teachers throughout the diocese in the creation of a coherent, standards-based diocesan K–12 curriculum; and it promotes teacher leadership. Teacher teams and shared instructional leadership are two important elements of the ACE Collaborative model that build group capacity.

Teacher teams. The work of the local diocese begins by first acknowledging the expertise and experience each individual brings. It invites individuals to share their expertise with colleagues within the context of teacher teams. Teams occur within local schools by grade level (K–2, 3–5, 6–8, 9–12) and they interact with members of other teams across the diocese through periodic ACE-facilitated professional development and ongoing online discussions. Teacher teams work together to determine standards-based team/department outcomes for a given curriculum area (e.g., K–2 social studies, 9–12 religion). Additional curriculum discussions at each grade level culminate in decisions about course outcomes, unit concepts, and unit goals. These are the pieces that become the diocesan curriculum.

The processes and structures provided by the ACE Collaborative facilitate collaboration within schools, across dioceses, and both within and across grade levels. Knowledge is strengthened as teachers share ideas, talk about their content, and make curricular decisions using a common language and structure. Research on the ACE Collaborative shows that teachers perceive their collaborative planning as having positive effects on student achievement (Wei, Doyle, & Cameron, 2012).

Shared instructional leadership. Research shows that when considering school-related influences on student learning, "leadership is second in importance only to classroom instruction" (Leithwood, Louis, Anderson, & Wahlstrom, 2004). Yet despite this important role, few leaders are able to devote the time and energy to student learning that they desire because of the vast array of other responsibilities they try to balance (Blankstein, 2004). Added to the multifaceted challenges of school leadership is the reality that any individual leader brings content expertise in specific and limited areas, which makes observation of teachers in other content areas somewhat challenging.

Considering limitations of time and areas of content expertise, the argument for shared instructional leadership is an easy one to make. Shared instructional leadership places teachers and principals in mutually beneficial roles to

help improve student achievement. Research has shown that shared leadership fosters stronger working relationships among teachers and strengthens the professional community, both of which positively affect student achievement (Wahlstrom, Louis, Leithwood, & Anderson, 2010).

In the ACE Collaborative model, shared instructional leadership encourages teams and principals to work together. Teams/departments lead by expecting each member to plan effective school curriculum that supports the diocesan curriculum, use best practices in the classroom, engage in data-based decision making, and use appropriate external measures of achievement to set annual goals for improvement. Principals lead by articulating and acting upon an expectation of academic excellence.

The Spirituality Pillar—Enhancing Vision Capacity

While attention to teacher and group capacity is critical for school change, Anfara and Mertens (2012) assert that "the absence of quality leadership will impede any attempts toward improving capacity" (p. 61). A key component of effective school leadership is articulating a common vision and getting faculty to embrace that vision. Leithwood and colleagues (2004) describe a principal's role as threefold: to set goals; develop personnel who will work toward those goals; and redesign the organization to be more conducive to meeting the goals.

Little has been written about the influence of a collective vision on the organizational capacity of schools. We use the term *vision capacity* to refer to a school's capacity to articulate and work toward a common vision.

Catholic schools already share an overarching common vision that grows out of their shared spirituality. The spirituality pillar encourages the recognition that faith convictions should inform all aspects of what one does. Spirituality is the foundation for Catholic education and "must permeate the whole curriculum of Catholic education—what and why, how and who we teach" (Groome, 2001, p. 68). Spirituality influences beliefs about students and attitudes about learning, which in turn contribute to a school's vision for educational practice. Spirituality impacts the reason for and expression of the Catholic school's vision.

Likewise, spirituality influences both the rationale and implementation of the ACE Collaborative professional development model. Its starting point is the individual student, created in the image of God, and therefore deserving of dignity (United States Conference of Catholic Bishops [USCCB], 1994). Catholic school children provide the basis for the ACE Collaborative's em-

phasis on a shared vision of academic excellence because each student is deserving of the best possible education to reach his or her full potential. The United States Bishops remind us that "young people are a valued treasure and the future leaders of our Church" (USCCB, 2005, p. 1). Academically strong programs coupled with faith development are critical to their growth as children of God.

The ACE Collaborative also promotes a culture of continuous improvement as part of a school's vision. Culture is shaped by a group's shared values and beliefs (Deal & Kennedy, 1983; Sergiovanni, 1984). A culture of continuous improvement in a Catholic school setting encourages individuals to strive for academic excellence because a shared value is student learning and a shared belief is that students are deserving of a quality education. Individual improvement is also a shared value guided by the premise that each contributor to student learning can get better and should strive to do so. The ACE Collaborative promotes a culture of continuous improvement, mindful that one's best self is what God asks of individuals.

Enhancing vision capacity by promoting academic excellence and a culture of continuous improvement is emphasized in workshop sessions in which the ACE Collaborative encourages principals to articulate an expectation of excellence and to expect teacher and student improvement. As part of their role articulating and working toward a common school vision, principals help to motivate teachers and create a professional community environment (Leithwood et al., 2004; Wahlstrom et al., 2010). Actions to support these messages include scheduling time for teacher teams, promoting teacher collaboration, and providing targeted professional development when an area of need is recognized. ACE Collaborative program evaluation has shown that many diocesan and/or school-specific contextual factors interact together to either support or impede implementation and what has been reported as especially critical in order to bring about change is principal and diocesan support (Wei et al., 2011; Wei et al., 2012).

The Vatican document *The Religious Dimension of Education in a Catholic School* (Congregation for Catholic Education, 1988) notes, "the more the members of the educational community develop a real willingness to collaborate among themselves, the more fruitful their work will be" (§39). The ACE Collaborative recognizes that enhancing vision capacity that is guided by faith and spirituality and is focused on promoting academic excellence and a culture of continuous improvement is foundational to strengthening teacher and

group capacity. To this end, it benefits and involves the entire school community—principals, teachers, students, and parents.

The ACE Collaborative in Action

The ACE Collaborative has been working with (Arch)dioceses in the South, Southwest, and Midwest since 2007. To date, five (Arch)dioceses have completed the two year program and are applying ACE Collaborative content and processes to new curriculum areas; five others are at an early or middle stage of program implementation. The program is delivered primarily through three major components: annual week-long workshops during the summer; at least one follow-up professional development day each fall and spring; and online resources and discussions. In general, the first year focuses on curriculum and the second year on assessment. Instruction components are included throughout both program years as they intersect with curriculum and assessment components.

This study seeks answers to the following questions: To what extent do participants name aspects of capacity building when identifying what is most helpful about participating in the ACE Collaborative professional development? Does level of experience and/or faculty role impact participant responses related to capacity building?

Methods

Design

Participants evaluate each component of the program as it is implemented, and a portion of this evaluation data forms the basis of our analysis. One open-ended survey item on summer workshop evaluations from 2010 and 2011 asked three diocesan participant groups what they found most helpful about the ACE Collaborative. Responses were coded into one of three categories: teacher, group or vision capacity. The qualitative data drawn from coded responses to this specific question were used to investigate the participants' perceptions of capacity building in the participating dioceses.

Participants

Participants were elementary and secondary Catholic school faculty and administrators from three dioceses participating in the ACE Collaborative professional development during the summers of 2010 and 2011. These dioceses self-selected their participation in the ACE Collaborative during these years. All diocesan principals were asked to attend the summer sessions; teachers were chosen for participation by the diocese. Though parameters such as con-

Table 1: Respondent Characteristics

Characteristics	Year 1 (N=222)		Year 2 (N=141)	
	Frequency	Percent	Frequency	Percent
Gender				
Male	35	16	18	13
Female	187	84	119	87
Diocese				
1	81	37	39	28
2	63	29	49	35
3	76	35	52	37
Role				
Teacher	158	72	118	84
Administrator	48	22	15	11
Both	15	7	7	5
Teaching Level				
Grade K-2	41	22	29	22
Grade 3-5	52	27	39	30
Grade 6-8	45	24	44	34
Grade 9-12	23	12	12	9
Multiple	29	16	6	5
Teaching Experience				
< 3 years	18	9	8	6
3-5 years	20	10	29	21
6-9 years	30	14	20	14
10-15 years	51	25	29	21
16-20 years	21	10	23	16
> 20 years	68	33	31	22

tent area expertise and at least three years of teaching experience were suggested by the ACE Collaborative to guide teacher selection, dioceses were free to choose participants.

Two hundred twenty-two workshop participants in year one of implementation responded to the question and 141 participants in implementation year two responded. Of the 141 year-two respondents, 82% had previously attended the summer workshop in year one. Table 1 shows the characteristics of respondents who answered the question regarding the most helpful aspects of the program. All respondents had completed the two-year program by June of 2012.

Procedures

Each response was coded as pertaining to teacher, group, or vision capacity based on its predominant theme(s). First, responses related to increased teacher knowledge and skills in curriculum, instruction, and assessment, as well as teacher dispositions such as increased confidence in teaching and learning were coded as teacher capacity. For example, the following comment was coded as teacher capacity and is typical of responses that received the same coding: "We can all stand to learn/review methodology. It is always important to know why you are teaching what you teach, and this process definitely makes you think about it."

Second, responses related to collaborative planning and shared instructional leadership among teachers and administrators were coded as group capacity. For example, one participant responded that "The collaboration among teachers was helpful. Learning what others do and gain[ing] knowledge from others that face the same challenges as you is always a positive experience."

Finally, responses related to shared beliefs and values about student learning and promoting a culture of continuous improvement were coded as vision capacity. For example, one participant responded that the most helpful aspect of the summer workshop was "encouraging teachers and administrators to challenge themselves and each other through collective striving toward curricular and instructive excellence." Another described "gaining an understanding of the expectations for output for myself and my school" as most helpful.

Any responses that fell out of these three categories but related to other factors, such as presentation effectiveness or workshop organization and resources, were coded as other helpful aspects. Data were first disaggregated by program year, and then by three respondent characteristics: school role, years

of teaching experience, and grade level. The disaggregated data were analyzed to identify emerging patterns and themes.

This research presents a descriptive statistical analysis and does not make the claim that data are transferable to other dioceses. Rather, the data merely describe a particular population of Catholic school faculty members regarding the question of capacity.

Results

Overall, teacher and group capacity were frequently cited as helpful aspects of the workshop across both years and all disaggregated groups, while participants rarely cited vision capacity. In their open-ended responses, year-one participants most frequently cited enhancing group capacity (45%) as the most helpful aspect of the summer workshops, while year-two participants most frequently cited teacher capacity (43%). Year-one participants were more likely to enjoy group work and benefit from collaborative curriculum planning. By contrast, year-two participants tended to indicate that increasing teacher knowledge and skills, particularly in curriculum planning and implementation, was most helpful.

Table 2: Categories of Capacity Building from Year 1 and Year 2.

Category	Year 1 (percent)	Year 2 (percent)
Teacher Capacity	30	43
Group Capacity	45	35
Vision Capacity	2	4
Other Helpful Aspects	23	19
	n=222	n=140

Note: Participant responses to the question "What was the most helpful aspect of the week-long workshop?"

Table 3: Capacity Building by Participants' School Role

Category	Year 1 (percent)		Year 2 (percent)	
	Teacher	Administrator	Teacher	Administrator
Teacher Capacity	30	29	41	55
Group Capacity	47	40	37	23
Vision Capacity	1	6	2	14
Other Helpful Aspects	32	25	20	9
	n=158	n=63	n=118	n=22

School Role

For year-one participants, both teachers and administrators cited group capacity most frequently, while teachers enjoyed group work slightly more than administrators. For year-two participants, administrators cited teacher capacity most frequently while teacher responses tended to cite group capacity. For both years, administrators were much more likely than teachers to address vision capacity.

Teaching Experience

Novice teachers were more likely to cite teacher capacity in their responses than those with more classroom experience. This was more pronounced with year-two respondents, where novice teachers were far more likely to cite teacher capacity than any other aspect of the workshops. Among year-one respondents, teachers with three to five years of experience were more likely to cite group capacity as more helpful than the other groups, followed by teachers with six to nine years of teaching experience. Across both years, vision capacity was cited almost exclusively by teachers with 10 or more years of classroom experience.

Grade Level

Among year-one participant responses, teacher capacity was mentioned more frequently by teachers of higher grade levels. High school teacher responses addressed teacher capacity most frequently, followed by middle school (6–8), third through fifth grade (3–5), and kindergarten through second grade (K–2).

By contrast, K–2 responses from year-two participants were most likely to cite teacher capacity. Across both years, elementary grade teachers were more likely than middle or high school teachers to cite group capacity in their responses. High school teacher responses were least likely to address group capacity.

Table 4: Capacity Building by Participants' Years of Teaching

	Year 1 (percent)						Year 2 (percent)					
	< 3 years	3-5 years	6-9 years	10-15 years	16-20 years	> 20 years	< 3 years	3-5 years	6-9 years	10-15 years	16-20 years	> 20 years
Teacher Capacity	39	30	33	31	19	29	88	45	45	31	43	39
Group Capacity	39	60	53	37	52	46	13	38	20	45	30	42
Vision Capacity	6	0	0	4	5	1	0	3	0	7	4	3
Other Helpful Aspects	17	10	13	27	24	24	0	14	35	17	22	16
	n=18	n=20	n=30	n=51	n=121	n=68	n=8	n=68	n=20	n=29	n=23	n=31

Table 5: Capacity Building by Grade Level

	Year 1 (percent)					Year 2 (percent)				
	Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12	Multiple team	Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12	Multiple team
Teacher Capacity	27	29	36	43	21	45	38	43	42	33
Group Capacity	46	60	42	22	45	34	46	32	25	50
Vision Capacity	0	0	2	0	3	3	0	0	8	0
Other Helpful Aspects	27	12	20	35	31	17	15	25	25	17
	n=41	n=52	n=45	n=23	n=29	n=29	n=39	n=44	n=12	n=6

Discussion

Participants mentioned aspects of teacher and group capacity building as helpful features of the ACE Collaborative summer workshops. Year-one participants were more enthusiastic about program elements that focused on group capacity while year-two participants were more enthusiastic about elements that addressed teacher capacity. This shift may relate to two factors. First, workshop content in the first program year focuses in large part on collaborative curriculum planning, and in the second year on assessment. Given the more classroom-specific nature of assessment, it is not surprising that participants might find this content more helpful for building individual teacher capacity.

Second, although collaborative group work is central throughout the two program years, the newness of this approach in the first year may have contributed to participants' enthusiasm for professional collaboration. In fact, many first-year responses were characterized by a sense of novelty at the notion of working collaboratively within and across grade levels: one participant "found working with other teachers in my grade level to be very helpful," while another stated that "the most helpful aspect of the workshop was the collaboration among other grade level teachers…[and] finding out what the other teachers are teaching in earlier grades." On the one hand, it seems simple and obvious that teachers should work together and discuss curriculum regularly. But on the other hand, we know teachers are rarely given the opportunity for such professional conversations despite their well-documented benefits (Leo & Cowan, 2000; Levine & Marcus, 2010; Saunders, Goldenberg, & Gallimore, 2009), so it makes sense that program participants would meet their first dedicated opportunity for professional collaboration with novel enthusiasm.

Elementary school teachers tended to value program components aimed at group capacity more than middle and high school teachers did. This might reflect a predisposition toward group work in grades K–5 where traditional organizational structures often emphasize collaboration among teachers (e.g., team teaching, lack of departmentalization). Alternatively, the response differences by grade level may mirror the existing opportunities for professional collaboration (or lack thereof) at various grade levels. High schools are often characterized by departmental structures and relatively large faculties, and individual teachers therefore typically work alongside colleagues who teach similar subjects, if not identical courses. In theory, this is highly conducive to collaboration on curriculum, instructional practices, and assessment strategies. By contrast, most Catholic elementary schools have one or two classes per grade,

and individual teachers therefore have few, if any, colleagues in the building who teach the same content and skills. Perhaps more elementary teachers cited group capacity elements as most helpful because they had previously felt more isolated in their professional work than many high school teachers who may have already experienced collaboration on a regular basis. This was likely the case for the teacher who found it most helpful "that as a fourth grade teacher I was able to speak with other fourth grade teachers in the diocese."

Regardless, the ACE Collaborative could be more intentional about framing group work as an effective approach for teachers of *all* grade levels, and building on the professional collaboration that already exists in some schools. Additionally, communication between grade-level teachers and vertical learning across teams should be developed and maintained in order to achieve curriculum coherence.

Novice teachers cited teacher capacity as helpful more frequently than groups with more classroom experience, and teachers with some experience enjoyed group work the most. This finding is consistent with The New Teacher Project research (Weisberg, Sexton, Mulherm, & Keeling, 2009) that teachers improve the greatest early in their careers, and most teachers reach their peak after five years in the classroom. It suggests that planning in collaborative groups is an effective approach for beginning teachers to improve their knowledge and skills, because they can benefit from the support and expertise of more experienced colleagues. This finding also suggests that the ACE Collaborative and other professional development models should take into account the evolving needs and strengths of teachers at different stages in their careers.

Despite a programmatic commitment to helping leaders develop a common vision, vision capacity was rarely cited by participants as a helpful aspect of the ACE Collaborative. Further program evaluation should probe the extent to which vision is clearly articulated by program staff and diocesan and school administrators responsible for local implementation leadership, and the extent to which one shared vision is embraced by all school faculty members. Administrators did cite vision capacity more than teachers, which is consistent with the principal's role as a school's visionary leader. Additionally, professional education for adminstrators tends to address elements of vision capacity (e.g., articulating and helping faculty to achieve a school's vision), whereas collegiate teacher education curricula typically do not emphasize these themes. Perhaps, then, teachers are less likely to see shaping the vision of a school as part of their role. The ACE Collaborative should explore ways

to help teachers see that their contributions in this area are important for building a school's vision capacity.

Capacity building must enhance "the collective effectiveness of a group to raise the bar and close the gap of student learning for all children" (Fullan, 2006, p. 9), and we believe vision capacity is an essential element in this process. The ACE Collaborative and other professional development models would therefore do well to more intentionally help schools and dioceses articulate shared beliefs and values about student learning.

Conclusion

In an article on whole system reform, Fullan (2011) emphasizes capacity building as one of the "right drivers" and in opposition he labels accountability as a "wrong driver." He argues that with the latter, too much emphasis is placed on teacher evaluation and not enough on providing teachers tools, conditions, and processes to improve student learning. Professional development offers a means to enhance capacity but in order to affect change, multiple areas of school capacity must be targeted (Newmann et al., 2001; O'Day et al., 1995). Research further shows that principals and teachers agree on three leadership practices that contribute to better instruction, and are parallel to teacher, group, and vision capacity: attending to teachers' professional development needs; creating structures and opportunities for teacher collaboration; and focusing the school on goals and expectations for student achievement (Leithwood et al., 2004).

Using the ACE pillars of professional teaching, community, and spirituality and relating teacher, group, and vision capacity to them provides a helpful conceptual framework for the ACE Collaborative professional development model. The framework and attention given to teacher, group, and vision capacity could be a guide for other Catholic school professional development. This research shows that Catholic (Arch)dioceses utilizing the ACE Collaborative are focusing on the right driver (Fullan, 2011) and attending to multiple areas of school capacity as evidenced by participants' recognition of aspects of teacher, group, and vision capacity.

This research also shows that while aspects of teacher and group capacity are generally acknowledged as a "most important aspect" of the ACE Collaborative professional development model, statements related to vision capacity are rarely noted. The ACE Collaborative needs to be more deliberate in its focus on vision capacity and might do so through more explicit reference during

presentations and within provided resources.

The ACE Collaborative for Academic Excellence is a professional development model that builds capacity among Catholic school personnel and as such is contributing to teacher development, positive colleague interactions, shared instructional leadership, and ultimately student learning. Emphasis on teacher, group, and vision capacity in professional development has the potential to affect lasting change in Catholic schools.

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