Promoting Students' College and Career Readiness: A Case Study of Distributed Leadership

Practice in Supporting a High School Career Academy Model

Joel R. Malin, Curriculum Specialist
Pathways Resource Center
University of Illinois at Urbana-Champaign
jrmalin2@illinois.edu

Donald G. Hackmann, Professor
Education Policy, Organization and Leadership
University of Illinois at Urbana-Champaign
dghack@illinois.edu

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Abstract

Creating smooth and effective pathways for students to transition from high school to college or career is of paramount importance and, although challenging, some have developed promising approaches. In this case study, we focused on the practices of formal and informal leaders guiding college and career academies within an urban high school and school district, utilizing distributed leadership as a theoretical framework. Data analysis yielded seven themes which are assistive in understanding both how and why numerous leaders have succeeded in developing and refining these academies. This study is significant for its singular focus on leadership practices and its contribution to the growing body of research on distributed leadership. This study's documentation of considerable leadership distribution outside the confines of the organization is unique within the literature and underscores the need for researchers and practitioners to extend their reach beyond organizational boundaries under certain circumstances. Implications and recommendations are presented.

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In this competitive, globalized economy, creating effective transitions for students into college and careers is crucial both for individuals and for nation as a whole (Symonds, Schwartz, & Ferguson, 2011). Accordingly, policymakers and researchers stress the need to improve U.S. postsecondary degree and certificate completion rates, to address the "educational pipeline problem" (Bragg, 2011, p. 356). Numerous programs and policies reflect earnest efforts to spur these improvements; however, U.S. high schools evidence mixed results on the whole with respect to college and career preparation (Conley, 2010), and the preparation of underrepresented students is particularly concerning (Aud et al., 2012).

The Carl D. Perkins Career and Technical Act of 2006, importantly, provides federal funds to support the skills development of students enrolled in career and technical education (CTE) programs of study (POS) that are intended to provide increased career preparation and postsecondary access for high school graduates. Ideally, POS offerings reflect considered planning, include meaningful partnerships, and promote effective transitions across educational levels and/or to the student's chosen career (Taylor et al., 2009). Both benefits and challenges of robust POS implementation are apparent. POS are multi-faceted, requiring productive institutional linkages. Even their initial selection is no small task, necessitating labor market analysis and consideration of local capacity. Also, divisions that may exist between CTE programs and core academic disciplines complicate leaders' efforts to ensure rigorous, aligned coursework (Alfeld & Bhattacharya, 2012a).

Notwithstanding, some high schools have developed an array of strong POS and career-focused pathways for students. These sites are instructive, with potential to inform more

widespread quality implementation (Alfeld & Bhattacharya, 2012a; Hammond et al., 2013; Stipanovic, Shumer, & Stringfield, 2012). However, empirical research has overlooked the essential role of leaders in guiding these implementation processes. Robust programs may be impossible to establish absent leadership practices that call upon the collective contributions and expertise of educators across secondary and postsecondary sectors (Taylor et al., 2009).

Therefore, in this case study we focused specifically on formal and informal leaders' roles in developing college and career academies in one urban high school, applying a distributed leadership framework. In the next sections, we review literature regarding distributed leadership, and we consider its application to the development and improvement of college and career pathways for students. Subsequently, we describe the study's research questions, methodology, and data sources. After presenting the findings, the discussion connects these findings to the distributed leadership research. We conclude with recommendations for policy and practice.

Distributed Leadership: Concepts and Elements

The study of leadership has long been characterized by investigations of individual leaders, a reflection of "the common ideal of a heroic leader" (Lashway, 2003, p. 3) that contradicts the current realities of leadership practice in complex environs such as schools. The nature of the principalship, for instance, has shifted and expanded markedly: Whereas once a principal was seen mostly as a manager and parent-teacher buffer, the expectation now is for a principal to be a full-fledged leader of learning and igniter of organizational change. The task of transforming schools and facilitating the implementation of a steady stream of new policy mandates has become too complex for one person (Gronn, 2010; Lashway, 2003). The concept of distributed leadership, originally formulated to support leadership activities in school settings,

has seen its appeal grow both as a prudent approach to school leadership practice and a window into understanding the real leadership work that is occurring.

Distributed leadership is "first and foremost about leadership practice" that, in turn, is framed "as a product of the joint interactions of school *leaders*, *followers*, and aspects of their *situation* such as tools and routines" (Spillane, 2006, p. 3). It is especially conducive to analysis not only of *what* leadership work is done, but *how* it occurs. Leadership is exercised by multiple individuals, interacting with others, using various structures and tools, and within particular contexts. Ideally, leadership is organized so that its effects on school quality are multiplicative rather than additive: The work is greater than the sum of its parts (Gronn, 2002a). Individual and collective expertise within the organization is efficiently uncovered and deployed, to the benefit of the educational enterprise.

Effective school leaders empower others so that leadership functions are not exclusive to those in formal administrative positions but also emerge through relationships and networks throughout the school (Spillane, Halverson, & Diamond, 2001). Through leadership distribution, traditional organizational hierarchies and divisions of labor are replaced by a relational perspective characterized by interdependencies, with formal and informal leaders working collaboratively in leadership activities (Spillane et al.). Effective administrators restructure the organizational culture, developing human capacity and forming a system that embraces all individuals as leaders (Murphy, Smylie, Mayrowetz, & Louis, 2009).

Organizational leadership scholars and practitioners have long argued for the need to look beyond administrators situated at the top of the organizational hierarchy (Barnard, 1968; Harris, 2009). Moreover, recent research confirms that formal leaders in practice appear to be recognizing and attempting to address the shortcomings of limiting leadership in an

individualistic manner (Harris, 2009). Accordingly, distributed leadership has emerged as both a viable theory and an effective approach to leadership in educational organizations.

Whereas individualistic perspectives tend to emphasize personal qualities of the formally appointed leader, distributed leadership perspectives are oriented differently. For instance, a school or community college administrator displaying distributed leadership behaviors may be valued for her ability to capitalize upon latent talents within the organization or to foster a community learning culture (MacBeath, 2009). Informal leaders, such as faculty members, social workers, counselors, and academic advisors, may assume leadership roles and contribute expertise to the educational enterprise. Also, structures, tools, and interactions are essential elements; for instance, a regularly meeting cross-disciplinary committee (a structure) may offer a pivotal forum for improvement-oriented curriculum improvement work.

The study of distributed leadership has expanded beyond the school building into the school district level (Park & Datnow, 2009) and into higher education settings (Bolden, Petrov, & Gosling, 2008; Kezar, 2012; Lumby, 2003). We argue distributed leadership is especially crucial under conditions that call for coordination across entities, including PK-12 education, postsecondary institutions, and business/industry partners. With respect to the push to improve 2- and 4-year college completion rates (Bragg & Durham, 2012), for instance, leadership spanning educational institutions and community stakeholders becomes essential. Distributed leadership theory and perspectives have been applied to understand leadership practice and to emphasize or encourage a particular configuration or set of approaches to leadership. We follow suit for the present study, focusing on uncovering effective approaches and strategies that can be used by practitioners engaged in career pathways and program of study implementation work. First, we

provide a review the career and program of study implementation literature, emphasizing findings related to leadership or distributed leadership practices.

Research on the Intersections of College and Career Pathways and Distributed Leadership

In conducting this review of leadership activities that support the development of college and career pathways, we examined numerous research studies and evaluations. Because many sources focused specifically on the implementation of programs of study, our review included reports of mature POS sites, POS guidance documents, and POS implementation guides. Of concern, the role of leaders (and, in particular, the principal) in POS implementation generally has been overlooked, not only by researchers and evaluators but also by policymakers. Our review uncovered only limited references to leadership. Hammond et al. (2013, p. 126) described the importance of "school administration and staff buy-in." Distributed leadership was addressed in the *Illinois Programs of Study Guide* (Taylor et al., 2009), which lists "Leadership, Organization, and Support" as one of six guiding principles:

> Ultimately, transformational and transformative leaders engage in practices of *shared or distributed leadership* (Elmore, 2000). They reject top-down, hierarchical, and secretive forms of leadership in favor of participatory, consensus-oriented, and transparent approaches (Jahan, 2000). They understand leadership is not the purview of one or a few, but a shared responsibility of many. They know there is no other way to achieve change than to work collaboratively with others who aspire to similar goals and outcomes, and they seek opportunities to nurture collaboration. This vision of leadership is evident in leader behaviors that encourage collective communications, actions, and attitudes that bring about real, deep and lasting change. (p. 13).

While not overtly mentioned, the importance of distributed leadership was implied in several publications. In this section, we describe patterns that emerged, using the lens of distributed leadership theory, both in terms of enabling structures and tools, and in terms of the leaders involved in career pathways implementation.

Enabling Structures and Tools

Structures and tools can serve to support leadership activity within complex organizations. We found evidence of several common structures and tools at mature and highly implemented POS sites. Many sources cited active involvement of multi-stakeholder advisory committees involving secondary and postsecondary representatives, businesses, and community partners (Alfeld, 2012; Alfeld & Bhattacharya, 2012a, 2012b; Office of Career, Technical, and Adult Education [OCTAE], 2010; Stipanovic et al., 2012; Taylor et al., 2009). Committees performed a variety of functions, including reviewing labor market trends and employment needs, evaluating and generating recommendations for pathways and programs of study, forging cross-institution agreements, and monitoring progress. By definition, POS cannot exist in isolation within one educational institution; therefore, advisory committees are essential for facilitating communication and alignment.

Articulation agreements are commonly described (Arizona Department of Education [ADE], 2011; Lewis & Kosine, 2008; OCTAE, 2010; Shumer & Digby, 2011; Stipanovic et al., 2012; Taylor et al., 2009; Wisconsin Department of Public Instruction [WDPI], 2011). These agreements designate parameters within which credits earned in one institution will transfer to another institution, thus helping students successfully transition from institution to institution, on their way to earning degrees and credentials. Related, dual credit or dual enrollment arrangements are commonly described or advocated (ADE, 2011; OCTAE, 2010; Taylor et al.,

2009; WDPI, 2011). Memorandums of understanding clarify goals, activities, and intended outcomes for various partners (OCTAE, 2010; Taylor et al., 2009).

Also addressed is the importance of creating policies and systems that support integration of academic and CTE content (Alfeld & Bhattacharya, 2012a, 2012b; ADE, 2011; WDPI, 2011). These efforts might include providing common planning time for teachers across departments, increasing the proximity of CTE and academic teachers, facilitating cross-teaching of core courses, and/or using "smaller learning communities" (Hammond et al., 2013, p. 96). Stipanovic et al. (2012) reported that high school block schedule implementation enabled more in-depth learning. Notably, Alfeld and Bhattacharya (2012a) found only isolated instances of integrated academic and CTE coursework and rarely encountered systematic approaches to enable this integration, such as the use of curriculum mapping to align content.

Professional development opportunities also are described as essential (Lewis & Kosine, 2008; Stipanovic et al., 2012; Taylor et al., 2009; WDPI, 2011) and are highlighted within the OCTAE (2010) design framework. Castellano, Sundell, Overman, and Aliaga (2012) described observations of ongoing professional development, focused upon topics such as project-based learning and integration of curricula. Lewis and Kosine (2008) describe the importance of developing a sense of community among teachers, which professional development can promote.

Technical skills assessments are frequently utilized tools; they were employed at highly implemented sites (Stipanovic et al., 2012). Aside from assessments that lead to industry recognized credentials, certificates, and/or degrees, each of these sites made use of occupationally specific assessments carried out by student organizations, such as FFA and Health Occupations Students of America.

The Leaders Involved: Champions, Dedicated Staff, Initiative, and Commitment

Although enabling structures and tools are important, they merely provide supports to the individuals and teams that build, refine, and sustain rigorous POS. A principal, for instance, may not possess the requisite curricular expertise to lead the college and career pathways initiative and may thus heavily rely upon colleagues. Yet, the principal has a duty to engage in leadership actions that safeguard successful pathways implementation, including promoting a collaborative and learning-focused culture, consensus building, appointing and empowering leaders, identifying and removing barriers to progress, strategically allocating resources, revising policies and organizational structures, and holding individuals accountable. Although the principal may not be directly involved in pathways development, he/she should be a constant presence. Castellano et al. (2012) found that teachers at a highly implemented site received substantial administrative support, including through "the principal's open-door policy and commitment to supporting curriculum innovation and ongoing professional development" (p. 107).

Formal leaders' influence upon school culture is evident from other strands of research. In this context, their influence might be necessary to overcome organizational divisions among academic and CTE faculty or to challenge inequitable course selection practices (Welton & La Londe, 2013). For example, Stipanovic et al. (2012) observed that traditional perceptions of CTE as being offered for students with lower ability levels were changing at highly implemented college and career pathways sites. Welton and La Londe (2013) noted that equity-conscious leaders were intentional in providing opportunities and access for every student. Because their leadership responsibilities encompass the entire institution, administrators have formal authority to situate pathways-related conversations and activities within the overall organizational mission and structure, thereby forging connections with established programs and practices. Hammond et

al. (2013, p. vi) noted the importance of building onto existing initiatives with "complementary goals."

Much of the information reviewed serves to underscore the essential nature of the *leader plus* concept in distributed leadership (Spillane, 2006). In complex undertakings, it is incumbent to invite both formal and informal leaders to take initiative and assume responsibility based upon task demands. Hammond et al. (2013) observed individual teachers serving as champions for the integration of CTE and academic coursework.

The importance of counselors and teacher leaders is frequently described (Alfeld & Bhattacharya, 2012a, 2012b; Castellano et al., 2012; Hammond et al., 2013; Lewis & Kosine, 2008; McCharen, 2008; OCTAE, 2010). Exemplary teachers were present at highly implemented sites, "knowledgeable about their subject areas and able to integrate academic and CTE instruction, establish trusting relationships, and deliver instruction through project-based instructional strategies" (Stipanovic et al., 2012, p. 22). These authors reported that community college personnel provided career guidance to high school students, and CTE instructors shared this responsibility by providing real-life information about skills needed to be successful in various careers. Yet, Alfeld (2012) observed that CTE and programs of study were "barely on the radar for many guidance counselors" (p. 53) at visited high schools; these counselors were more focused on such tasks as scheduling, testing, and assisting students with postsecondary applications.

Business and industry partners also are instrumental in providing support and expertise to assist with program development and provide opportunities for students (OCTAE, 2010; Taylor et al., 2009). Hammond et al. (2013) found that businesses were willing to partner,

provide resources, and offer substantive opportunities to students, including guest speakers, internships, and work-based learning experiences.

In general, it appears that fundamental conditions of distributed leadership are unvaryingly present at sites that are implementing rigorous college and career pathways. The necessity of partnerships, collaboration, and coordination is repeatedly conveyed across studies and documents, and the importance of ongoing relationships is described (Alfeld & Bhattacharya, 2012b; ADE, 2011; Hammond et al., 2013; OCTAE, 2010; Shumer & Digby, 2011; Stipanovic et al., 2012; WDPI, 2011). Taylor et al. (2009) assert the necessity of "active engagement of multiple stakeholders who act collectively to create and implement a shared vision" (p. 12) and describe the necessity of "concerted action," (p. 13) which aligns with Gronn's (2002a) conception of distributed leadership.

It is important to examine both how and why robust pathways implementation has occurred at successful sites, from a leadership perspective. However, as disclosed in this literature review, research that specifically investigates the role of formal and informal leaders in this work is scarce. We suspected that distributed leadership principles are in operation—by necessity—at successful sites, so in this study we applied distributed leadership theory as a means to better understand implementation. Improved understandings will suggest directions for practice, including the scaling of program of study and pathway reforms. In the subsequent sections, we make an initial contribution by describing leadership practices at a highly implemented site and sharing recommendations for practice.

Research Methodology and Data Sources

A single case study design was pursued, focusing on school- and district-level leaders' practices in Jefferson High School (JHS), one of four comprehensive high schools in Rockford

Public School District 205 (RSD 205), which is located in the diverse urban community of

Rockford, Illinois. This school was identified based on recommendations obtained from

knowledgeable individuals and state-level policymakers engaged with POS development. JHS

had been selected as the school district's initial site to pilot a wall-to-wall career academy model

during the 2012-13 school year. A freshman academy and four career academies were created,

encompassing a total of 20 career pathways from which students could select individualized POS

based upon their career interests. Research methods included semi-structured interviews of

several individuals who were involved with the JHS career academies, including the

Superintendent, Executive Director of College and Career Readiness, high school principal, JHS

academy coach, four career academy team leaders, five business leaders, and one school

counselor. We also conducted observations of classroom learning experiences, observed a career

academy team meeting, and engaged in content analysis of documents provided by the school

leaders. Several follow-up interviews were conducted with the principal, executive director, and

academy coach, to clarify our initial understandings and obtain additional information.

All interview data were recorded, transcribed, and returned to participants for member

checks. The constant comparative method (Miles & Huberman, 1994) was used for data analysis,

with open coding techniques employed to categorize the data (Patton, 2002). During

documentation review, documents and processes referenced therein were identified and targeted

for reference during subsequent interviews and observations. Using distributed leadership theory

as a lens, emergent themes were identified, compared across all participants, documents, and

observational data, and common themes were identified.

Case Context

Jefferson High School (JHS) is one of four comprehensive high schools in RSD 205. Located in one of Illinois' most populous cities, JHS enrolls more than 1,800 students in grades 9-12 and is ethnically and racially diverse. In 2013-14, the student body was 36.0% Hispanic, 34.1% White, 22.3% Black, 2.6% Asian, 0.3% American Indian, and 4.7% two or more races. Also, 2.5% of students were English Language Learners, 15.3% received special education services, 81.4% were designated as low income, and 6% experienced homelessness. Student performance on annual state assessments has consistently fallen below Adequate Yearly Progress performance targets; therefore, JHS educators have been compelled to develop and implement school improvement plans.

The RSD 205 student body has "changed dramatically during the past generation" (Rockford Public Schools, 2010, p. 9). The proportion of students qualifying for free and reduced-priced lunches, for instance, has increased from 18.0% in 1992 to 78.6% in 2010. In that same time period, White student enrollment declined from 68.1% to 38.0%, while Hispanic student enrollment increased from 5.6% to 22.3% (Rockford Public Schools, 2010). These changes have occurred within a changing community, one that has experienced economic tribulations precipitated at least in part by manufacturing declines in the late 1980s.

Since the 2008-09 school year, Mr. Donald (Don) Rundall has served as JHS principal. Mr. Rundall recalls a period of turbulence at JHS that preceded his assignment to JHS. Several years prior, Mr. Rundall had been an assistant principal at JHS, and in the interim period he had served as both an elementary and a middle school principal. From the beginning of his tenure as JHS principal, it was clear that reforms would be necessary to increase student engagement and improve academic outcomes. This conclusion, with which Mr. Rundall concurred, had been reached by community leaders, perhaps most prominently by a group called Alignment

Rockford. A collective impact organization comprised of numerous community and educational leaders, this organization has worked since 2009 to align resources to support school strategies aimed to raise student achievement, positing that improved student outcomes will spur social and economic advancement within the community. After studying successful community models operating in comparable environments, the organization developed a framework that was intended to increase students' educational attainment while helping RSD 205 to fulfill its strategic plan. Although the framework identified numerous approaches, among the most significant was the high school wall-to-wall college and career academy. Academies are intimate learning communities intended to provide real-world experiences to students, linking schools and the workplace. Core academic coursework is provided alongside—and, ideally is integrated with—career- and pathway-specific courses that are unique to each academy.

Dr. Ehren Jarrett, RSD 205 superintendent, became involved with Alignment Rockford in his initial role as assistant superintendent with responsibility over the district's secondary schools. He and Mr. Rundall met with Alignment Rockford leaders, who presented the academy concept and conveyed a desire for JHS to serve as the district's pilot school. Mr. Rundall expressed interest, but a need for more information. Subsequently, Dr. Jarrett, Mr. Rundall, a JHS assistant principal, and several others visited the Metropolitan Nashville (TN) Public Schools to investigate the academy model. They benefited from "going off the beaten path," talking to teachers and students. From teachers, Mr. Rundall and Dr. Jarrett learned about students' academic growth, which they attributed to the academies. Don also sensed considerable excitement from students and was able to ascertain the virtues of academies for students. During the visit, Dr. Jarrett reported that he "started to feel some buy-in on the model," and Don did, as well. Returning to Nashville "on-board 100%," Don began to "flood (staff) with information" so

that they could make an informed assessment about its potential for JHS. Mr. Rundall permitted the faculty to vote on this major reform, and the results of the vote were strongly in favor of pursuing an academy structure. Subsequently, the RSD 205 school board unanimously approved this structural change for JHS. Judy Gustafson, JHS Academy Coach, recounted the palpability of Mr. Rundall's resolve throughout, as he passionately articulated (particularly after the vote had occurred) the need for strong staff engagement and involvement. According to Ms. Gustafson, he stated early on, "We are going to do this…I don't know how, but we have to do it." A strong, dedicated principal leading the way, Ms. Gustafson observed, was also evident and of central importance at several of the Nashville schools that she had visited.

The pilot's first phase occurred in the 2012-13 school year. All ninth graders were assigned to the Freshman Academy, and coursework and other opportunities (such as a career expo) were geared toward helping these students to decide which of four academies would best suit their interests: Business, Arts, Modern World Languages, and Information Technology (BAMIT); Engineering, Manufacturing, Industrial and trades Technology (EMIT); Health Sciences (HS); or Human and Public Services (HPS). In 2013-14, the first year of full implementation at JHS, incoming freshmen were again part of the Freshman Academy, while 10th-12th grade students were assigned to the academy of their choosing, based upon their college/career interests. Other high schools in the district followed closely behind the example set by JHS: in 2013-14, all freshman students began to participate in Freshman Academies, and in 2014-15 all 10th-12th graders in RSD 205 were part of an academy they selected. Each school has an Academy Coach, who provides oversight to the academies, as well as Academy Team Leaders for each of the four academies and the Freshman Academy. In addition, the schools' assistant principal positions have been restructured, with each assigned as an Academy Principal.

Professional development has played a key role in the academies at JHS. Summer boot camps for teachers were non-compulsory but well attended. Professional development opportunities were intentionally designed to rely upon academy leadership to the greatest extent possible, to forge unique identities and foster smaller communities. The academy principals, academy coach, and team leaders played major, formal leadership roles, and many others served in informal roles. Community members also served as leaders, often as part of Academy Support Team participation or arising out of site visits that occurred during boot camps. Major structural changes have facilitated cross-disciplinary planning opportunities. Meanwhile, district leaders have contributed significantly by developing academy guides and career pathways, and student preferences have influenced pathways offerings. The academies continue to evolve, and JHS leaders have worked to instill an environment in which it is acceptable—even encouraged—for teachers to try out new ideas, to connect directly with business and postsecondary partners, and to learn from successes as well as mistakes.

The initiative is in its third year and formative data are continuing to be assessed, but initial results have been positive. JHS leaders report significant excitement among the student body; students' increased focus on college and career goals; increasing levels of staff buy-in and engagement; improved freshman student attendance; and considerable and ever-growing community, higher education, and business engagement with the students and academies. The JHS pilot was perceived as sufficiently promising to justify scaling up to all RSD 205 high schools in 2014-15. As well, considerable leadership distribution has both fostered, and been enabled by, the restructuring and associated processes.

Findings

In this section, we describe the most salient leadership actions, structures, opportunities, and processes in relationship to the development and refinement of wall-to-wall college and career academies at Jefferson High School. Based upon numerous interviews, observations, and reviews of artifacts, we identified seven themes: building a shared vision, creation/employment of supportive structures and related tools and approaches, expanding opportunities to perform leadership, emergence of leaders and champions, cultural shifts enabling enhanced participation and organic change, experienced benefits of change, and experienced challenges of change. Elaboration of these themes includes description of distributed leadership approaches employed by educators and their partners, as well as the structures and tools that facilitated these practices.

Building a Shared Vision

Several participants underscored the importance or process of building a shared vision regarding college and career academies. Alignment Rockford, whose membership included RSD 205 educators, provided the initial impetus by researching and endorsing the college and career academy model as a means of meeting strategic goals. Superintendent Jarrett, then an Assistant Superintendent, was a member of the group at the time and recalled feeling "great skepticism," both about the "pace of change that was being proposed" and about "what the model really meant." Too, Mr. Rundall, when initially approached about academies and the possibility of JHS serving as a pilot school, was "interested in the concept...but I (needed more) information." Both administrators described their visit to Nashville, where wall-to-wall academies were already in place, as pivotal for shaping their vision about what academies could be at JHS and RSD 205. For Dr. Jarrett, at that time he began to see the "genius of the '*and*'—the college *and* career being an important concept." Previously, he held "some incorrect assumptions" and was concerned about "focusing too much on careers." To Mr. Rundall, hearing from teachers about

"academic growth" was crucial, but what "really put me over the edge was when I was able to talk to students."

Both leaders returned from the visit with a clear vision and strong conviction about the ability of these reforms to translate to RSD 205. Each worked diligently to share their passion and understanding, to build a shared vision within the system. As described by Dr. Jarrett, the key questions he asked himself were, "How can we build community support…and teacher support for the model?" Accordingly, Dr. Jarrett was heavily involved in "about 70 community meetings" and also was part of "multiple visits to Nashville." Mr. Rundall's attention was geared toward building support and understanding among staff at JHS. In time, his continual articulation and information sharing was rewarded, as staff members voted in support of implementing wall-to-wall academies. As time has passed, efforts have continued to build and strengthen a shared vision among key stakeholders. Currently, academy coaches (one for each of four academies at each of four RSD 205 high schools) serve important roles, among them being to forge academy identities and mobilize teachers and staff members within each academy. Certainly not all staff members had yet fully embraced the academy model and vision, and based on past experiences some teachers expected this initiative to come and go. Nevertheless, these leaders continued to make efforts to bring staff members into the fold. Jill, an academy team leader, explained her commitment to the academy model:

> It's the one initiative that I actually got behind because I saw the potential, because businesses, outside community people were coming into the schools…and investing in here, their time, their money, whatever their resources are, and I thought they're not going to be happy if we let this go away.

Business leaders confirmed some teachers' initial hesitancy, but Chad noted a "big turnaround" in their levels of investment in the initiative. Kathy agreed and stated, "I think now that they realize the level of community involvement and commitment…now they're really buying into the benefit, as well."

Creation/Employment of Supportive Structures and Related Tools and Approaches

The academy reforms necessitated a set of new structures, both at JHS and at district levels, and their significance was emphasized by most of the individuals we interviewed. At the school district level, new positions were created, including the Executive Director for College and Career Readiness, with oversight for the academy models in all the district's high schools, and the Academy Coach position has been created and staffed at each school. Additionally, College and Career Readiness Councils (CCRCs) and Academy Support Teams (ASTs) are in place for each of the four academies. CCRCs are broadly aimed to foster connections among postsecondary institutions, community members, district administration, and the school administration, while ASTs foster community connections with teachers and students. As well, the Alignment Rockford Board (ARB) connects the community with school governance.

Although describing the precise roles of each of these groups was beyond the scope of this study, a key point is that each offers a crucial forum for members to share information, identify and solve problems, generate new ideas, and create new opportunities. Numerous examples were offered of the type of work occurring in these meetings. For instance, business member Kathy described a Health Sciences CCRC meeting in which preparations and problem solving took place around establishing student site visits at health care facilities:

We were kind of like, "wait a minute," because we've got confidentiality, we've got…affiliation agreements and understandings about immunizations…had they tried to

do that without having us all sitting at the table from the get-go, they would have hit a wall really quickly.

Alignment Rockford itself is a supportive structure that has played a major role in initiating and sustaining the academy reforms. Among their many supports is their continued work with ASTs and CCRCs "to ensure that there is adequate business representation" as well as "to fill in any gaps on the resource side of things that are needed," noted Bridget, the Alignment Rockford Executive Director.

At the school level, two important supportive structures are Small Learning Communities (SLCs) and Professional Learning Communities (PLCs). Teachers and support staff representing each academy comprise an SLC, which is therefore cross-disciplinary in nature and connected by a particular college and career focus. PLCs, meanwhile, are organized by content area. Together, educators work both within and across their academy teams, thereby enhancing the coordination of curricula, assessments, and instruction throughout the school. Counselor Steve highlighted the benefits of these combined structures: "you get so many learning communities that you're able to share so much more, and it adds a different aspect when you can say let me bring that back to my team here and see if we can get you guys some feedback on this issue to see if it's effective."

The school schedule represented an example of both a structure and a tool that facilitated the academy model and the cross-functioning of the teams. Designing the master schedule has become more challenging, as the school administrators work to provide access to courses for students across their career academies, while also providing common planning time for teachers to communicate within their SLCs and PLCs. Executive Director Dave explained that creating the ideal schedule was a work in progress: "we are still doing a lot of learning and we're not

where we want to be with our master schedule, and we're looking at both structural changes that have to be made at the course offering level and perhaps even some policies."

Several interviewees emphasized the importance of existing models and communication with individuals who were already implementing or experiencing career academies. Mr. Rundall and Superintendent Jarrett, for instance, stressed the salience of visiting and partnering with Nashville educators. Previously, RSD 205 had forged a "partnership with Ford Next Generation Learning," through which it was "paired with a mentor city (Nashville)." Lynn S., an academy team leader, nevertheless, expressed the desire for more communication and modeling by those who have implemented similar academies, stating that she "would love to be able to get out in the other school districts that have academy models."

Expanding Opportunities to Perform Leadership

The career academy reforms are characterized by markedly expanded educational leadership opportunities, not only for educators at JHS and throughout the district but also for partnering community members and postsecondary partners. The aforementioned CCRCs and ASTs, for instance, are community-led, with facilitation support by RSD 205 educators.

At the district level, a new division—the College and Career Readiness department—was created, with an Executive Director and former JHS teacher (David Carson) installed at the helm. Mr. Carson and his department, according to Superintendent Jarrett, play a key communication and coordination function. Principal Rundall highlighted the vigor of district supports, stating that Mr. Carson and a district colleague "have been a huge part of our academies" and adding, "There's a great rapport with (district personnel)."

The district also made a financial investment to support coaching positions in the district. Said Dr. Jarrett, "We made it non-negotiable that we would were going to have great academy

coaches like Judy (Ms. Gustafson) in our buildings." As was previously noted, each Academy at each school is led by an Academy Principal who is in charge of all operations within the academy. According to Mr. Rundall, "I really give them control," explaining that "98% of (disciplinary issues or parental concerns) can be solved at the academy level." Accordingly, Mr. Rundall's role has shifted substantially so that he is "now able to focus on the academic part" of the principalship—becoming a leader of learning for the school. Each academy also has an Academy Team Leader, who performs her/his leadership functions while also employed as teachers.

Mr. Rundall also described a recent reconceptualization of the department head role in RSD 205, particularly so that they could take on greater leadership within PLCs. The department heads and administration team collaborated to "revamp" their job descriptions. This appears to be part a broader effort to leverage existing resources and positions to support student learning.

Emergence of Leaders and Champions

Closely related, study participants presented abundant examples of leaders who had emerged to support the academies. Some of these leaders were formally positioned to do so, for instance as academy coaches or as academy principals, while others exerted leadership from informal positions, such as academy team leaders. Perhaps most significantly, considerable leadership from community members has been evident as well.

Academy Team Leaders and Academy Coaches are particularly central to the success of the initiative. When asked to describe their positions, the team leaders described serving as motivators or encouragers. Lynn G. explained that her "role is to lead the academy and to motivate that group of teachers to accomplish the academy goals that you develop as a group." Lynn S. viewed herself as

the delegator. I delegate to these people to take on this task, this task, and then we bring

the information back. We don't solve problems in this big group. We have little groups

now solving the big problems that we bring back and then we work forward.

Superintendent Jarrett recognized the Academy Coaches for performing a connector function

across the district's four high schools. He viewed coaches a major part of the reason why the

district is "doing a good job of developing and maintaining the quality of our innovative

programming and our community partnerships." Especially given their encouragement,

delegation, and connection functions, coaches were crucially positioned to foster distributed

leadership among team members, and even within the community in some instances.

Ms. Gustafson, herself in a role that included being JHS Academy Coach and a clear

difference maker in the district as well, was esteemed for her "wealth of knowledge." One Team

Leader explained, "She's been able to guide us and advise us when there's something, as leaders,

we are like, 'How'd we get stuck?'" Ms. Gustafson, in turn, described supports offered by Mr.

Rundall and by Mr. Carson at the district office. Multiple levels of support have been engineered

into the system, which several individuals affirmed has an overall positive effect on teachers and

staff.

Mr. Rundall, Mr. Carson, and Ms. Gustafson also described the emergence of new

leaders, i.e., individuals who may not have previously had opportunities or inclination to pursue

leadership. For example, Mr. Rundall described a data retreat in which he "saw a swing in

leadership," with some relatively novice teachers who "have jumped (in) and are running" in

data leadership roles. JHS has, in fact, been something of a "training grounds" for new leaders,

as described by Ms. Gustafson. During Mr. Rundall's tenure as principal, numerous

administrators have been promoted into principalships, thereby necessitating their replacement.

While these are bittersweet occurrences, they speak to his ability to develop those under his tutelage. Ms. Gustafson, similarly, describes her "nurture and nudge" approach to leadership, which appears to be conducive to the growth of individual and collective leadership capacity at JHS.

Significant leadership has emerged out of the community ranks as well. Mr. Rundall described the efforts of John, manufacturing businessperson in the community, who also serves as an AST leader. It became clear, to be more current and to enhance the curriculum, that the shop was in need of enhancement and a CNC machine would be needed. Ms. Gustafson recounted, "My mind is saying, we don't have $40K…but they figured it out." AST Team members, led by John, found a used machine, fundraised, donated some of their own money, and ultimately purchased a CNC machine for the school. Also, they performed shop renovations and helped to update the manufacturing curriculum.

Cultural Shifts Enabling Enhanced Participation and Organic Change

Certainly, these reforms, structural changes, and new positions would provide only limited benefits absent a participation-friendly culture. Indeed, our data collection suggested positive shifts in culture that functioned to enhance participation and encouraged organic changes.

Among the reasons JHS was chosen as a pilot site, according to Mr. Rundall, is that "there hadn't been turnover in the administration and there was a pretty good rapport" between administration and faculty; Superintendent Jarrett concurred with this observation. Subsequent leadership actions and approaches helped to confirm that decision and may have further strengthened the culture. Mr. Rundall's decision to allow the staff to vote on whether to pursue the initiative, for instance, contrasts from a more heavy-handed managerial approach. Some

individuals voiced a perception that in the past, some district initiatives would come and go and teachers "didn't have a say" in whether, or how, they would be pursued. Accordingly, Team Leader Scott posited, some teachers initially thought, "Let's give it a year or two and it will be going away like everything else does;" over time, they began to realize, "Okay, it's actually not going away."

Mr. Rundall's self-described "open-door policy" at JHS exemplifies the culture, and he has set the tone: his door is open, and he has expected that classrooms will be open to community members as well. Related, he, Ms. Gustafson, and other leaders have intentionally promoted direct connections between teachers and community members. Summer site visits to local businesses, which occurred as part of summer professional development, were expressly designed to initiate and further these relationships, and AST meetings put teachers and community/business leaders side-by side-as well. During a site visit, three business leaders from Rockford public health agencies were observed teaching a lesson on infectious diseases. That same day, the Freshman Academy team was planning a field trip to a local museum, an AST member who was a local businessperson was participating in the planning, offering recommendations for student conduct during the trip.

In the initial stages of academy implementation, as expressed by Alignment Rockford Executive Director Bridget, some held the perception that "the schools don't want our help; they don't want us in the schools." Over time, though, it became clear that excellent, "mutually beneficial" partnerships were possible and that JHS, led by Mr. Rundall, was welcoming of outside supports. The business leaders have been able to demonstrate, as community member Chad asserted, "it was never our intention to tell teachers how to teach," and many collaborative relationships have been formed. According to Mr. Rundall, "The hardest thing to change is

perception." He is proud when he welcomes visitors into the school and they leave saying, "Holy cow! Look at what these kids are doing and what they want to do."

Among teachers, team leaders, and the Academy Coach, increasing levels of trust have been observed. Team leaders are noticing academy colleagues who increasingly share ideas and take ownership and initiative, realizing they don't need to "ask for permission." Team Leader Lynn G. noted, "It is an adjustment," and reported seeing that "input from multiple, multiple teachers from the academy…(has) given people much better voice." At Jefferson, a strong "learning from doing" culture has become evident. Ms. Gustafson described that her ultimate goal is to empower others. Mr. Rundall, as well, highly values allowing individuals to try new things and to learn from doing. In fact, his administrative staff and faculty know that he will "support you 100% if you fail." Similarly, community leaders Kathy and Chad both echoed Mr. Carson's words: "We don't know what we don't know." They reported that Mr. Carson's repeated use of this phrase affirmed that the district was engaged in a reform journey that would involve some trial and error, reinforced an openness to suggestions from the business community, and embraced a willingness to try new ideas.

Experienced Benefits Associated with Changes

Benefits associated with JHS reforms were abundantly described by study participants. Also, in some instances interviewees expressed an appreciation for mutuality of benefits experienced by different stakeholders. In this subsection, we highlight the most frequently mentioned benefits while emphasizing areas of mutual benefit, as perceived by participants.

The most frequently perceived benefit related to the increased enhanced relationships, sense of community, and career connections that students experience within these new academies. Multiple participants used the word "niche" or "identity" to describe a sense of

purpose and belonging that is more conducive within an academy structure. Students, according

to several participants, have a greater sense of why certain concepts are important to their career

goals and are able to profit from more relevant, real-life learning. For example, community

member Chad described how students in the JHS graphics arts class designed new banners for

the city fire department. The sense of niche may also extend to many educators, who are

themselves part of a smaller community that they have played a significant role in shaping.

Related, several participants noted that students are now afforded more choice and

awareness of future college and career options. Counselor Steve explained that, prior to

implementation of the career academy model at JHS, "some kids didn't take academics as

important, but now you've got a career aspect and they're getting career knowledge." This may

also be true for many teachers, who previously may not have been aware of all of the different

college and career options for students. Lynn S. noted that the career focus has been brought "to

the attention of the core subject…teachers…So, I think they are quicker to adapt their

curriculum." Team Leader Jill agreed, explaining that the career academy model has resulted in

enhanced credibility for the Career and Technical Education (CTE) fields and has resulted in

increased CTE enrollments. She highlighted the fact that teachers of the core subjects are now

more informed of career choices for students: "this whole process has brought in education of

other staff members and adults in the building."

Postsecondary connections also were observed, permitting JHS students to receive

tutoring supports and also to obtain college credit. JHS students benefited from tutoring in

mathematics and in science, through personnel from the University of Illinois School of

Medicine Pharmacy Department. Through Rock Valley College, Rasmussen University, Embry-

Riddle University, and the University of Wisconsin-Platteville, students are provided with

numerous opportunities for dual credit or dual enrollment, in CTE and core subjects. In addition, Advanced Placement (AP) courses are offered within the school. Promoting a rigorous plan of study for every student, the district's graduation requirements include a statement that "at least one AP or Dual Credit course in any subject area is strongly encouraged." In addition, Mr. Carson, in his role as Executive of College and Career Readiness, worked with higher education institutions, to develop articulation agreements that facilitated students' smooth transitions from high school to postsecondary.

Business leaders also articulated certain benefits associated with participation, sharing that the initiative was one in which "mutual benefit" was achieved. For instance, community partner Chad, who works as a fireman, described the "pipeline...of potential employees" that is being created, with students learning content-specific and important "soft skills" through their participation in work-based learning opportunities. Chad shared, "That's really cool. So now we are getting mutual back-and-forth between the school and the businesses, and that adds value to the time I spend here." Judy reported that apprenticeship had been developed through the Rock River Valley Tooling and Manufacturing Association, as well as the Carpenters' Training Center. Kathy described a sense of "community pride" at being a partner of the schools to support this initiative and described her colleagues as "pumped and excited" after having had the opportunity to meet with students and describe their profession. Superintendent Jarrett indicated, "we just couldn't do this without the volunteer resources we are bringing in…as great as our employees are, the volunteer piece is really, really essential to amplifying their impact." The greater Rockford community, he added, "has really embraced the public school system in the way they hadn't previously."

Experienced Challenges Associated with Changes

As is to be expected with any restructuring effort, the ambitious reforms undertaken at JHS and in RSD 205 have brought some challenges, and were noted by several stakeholders. Challenges were described most readily by Academy Team Leaders, those closest to the implementation level. For instance, a team leader described issues associated with the pace of the initiative, and associated time constraints. She shared, "You have all this energy when you start out, but now we're burning out." Another noted: "I am finding it to be challenging" to engage certain colleagues in her leadership role. Also, although interviewed higher level administrators appeared content with the level of training and modeling that they had been afforded (e.g., through Nashville, etc.), some of those on the front lines may feel differently: "we kind of feel like we are blind…trying to forge our own way." Related, the ambitious pace of the initiative was experienced as stressful in certain instances, but determining the optimal speed of reforms was difficult. Noted one teacher: "There's just so much sometimes I feel like we went too fast, but then if we had slowed down…I wonder if we would have lost our momentum."

Another challenge, expressed by several individuals, involved attaining an acceptable level of scheduling purity, so that true teaming would be feasible and higher proportions of teachers would be entirely teaching within a particular academy. Superintendent Jarrett expressed "we still have a ways to go (to attain scheduling purity) because that gets really expensive." Mr. Carson, too, emphasized the importance of improving scheduling and described recently contracting with a scheduling expert, with the support of Alignment Rockford, to attempt to make improvements going forward. He explained, "we wanted to bring someone who had a much deeper experience level and broader perspective."

A final challenge related to finding time to engage in the processes, including communicating across the various team structures. Teachers in leadership roles reported the

potential of being involved with several groups, including the College and Career Academy team, College and Career Readiness Councils, Academy Support Teams, Small Learning Communities, and Professional Learning Communities (PLCs). While this was perceived as beneficial for facilitating communications across the entire school and the district, it created a challenge for finding time for these activities. Noted one educator, "Now we don't only just meet as a whole but we also have our other teams, so it's like you have a team on top of a team that builds a foundation for everything going forward." A Team Leader, who spoke quite favorably about the academy model, had underestimated the magnitude of the time commitment, yet underscored the importance of communication. This individual noted,

> If you'd asked me how much work it was going to be I would have told you it was going to be a lot more work, but it's double what I thought it would be, just in terms of management, communication. Because the minute that you drop your guard down and don't communicate effectively, then you've got a situation where people feel like they're wasting their time.

Discussion

In this study, we have examined school- and district-level leaders' practices as related to the adoption of wall-to-wall college and career academies at an urban high school, using distributed leadership as a theoretical foundation. Our analyses led us to extract several common themes. In this section, we consider their alignment to existing theory and research. Generally, we observe tight alignment, although we note a few distinctions. We consider the implications of our findings within the context of research and practice and we provide guidance for educators and partners who wish to develop or improve college and career readiness pathways for students.

Perhaps the most striking feature of the reforms at JHS and RSD 205, against the backdrop of distributed leadership scholarship, concerns the remarkable extent to which leadership was shared with community members—individuals who are external to the school or district. As observed by Bolden (2011), studies of distributed leadership have tended to be confined within organizational boundaries. Distributed leadership scholarship has thus insufficiently attended to the possibility of substantive leadership contributions emerging from outside an organization. At JHS, these contributions were both critical and routine. We noted the centrality of Alignment Rockford and the numerous examples of leadership taken by community and business leaders, often flowing from their facilitation of, or participation in, committee meetings. Their involvement exceeded mere participation in advisory committees that have been highlighted in the program of study research (Alfeld, 2012; OCTAE, 2010; Stipanovic et al., 2012); Rockford community members were actively engaged in the school, including providing opportunities for work-based learning, assisting with curriculum development, and guest lecturing in class. Future research into distributed leadership should attune to the prospect that leadership may not be confined within the walls of a school or organization.

In this case study, the centrality of Alignment Rockford was evident from the beginning, as this organization played a central role in initiating this reform. The district's adoption of the reforms, in turn, stimulated increased distribution of leadership. Related, Day et al. (2009, p. 14) observed, "It is often some form of external pressure that prompts efforts to distributed leadership more broadly." What appears to be noteworthy in this case is just how widely the leadership was distributed; noteworthy, as well, was the RSD 205 administrative team's willingness to embrace these recommendations from community leaders.

In our view, distributed leadership theory is capable of accommodating our observed expansion of prospective leaders and leadership activities. However, scholars will need to be attuned to this possibility, taking care not to miss leadership practice because of an overly constrained focus. Definitional issues also could contribute. Smylie, Mayrowetz, Murphy, and Louis (2007, p. 470), for instance, appear to omit those external to an organization by defining distributed leadership as "the sharing, the spreading, and the distributing of leadership work across individuals and roles throughout the school organization." Nevertheless, distributed leadership theory fits within a systems perspective whereby leadership is seen as a collective social process emerging from the interactions of multiple actors (Bolden, 2011; Uhl-Bien, 2006). These actors, we have documented, may come from a variety of backgrounds so long as they are bound by some commonality of mission or goals; existing structures also will enable or constrain their participation, and certain contextual features and approaches, such as the open doors approach taken by Mr. Rundall, and the freedom to innovate without fear of reprisal, are likely to be facilitative. Distributed leadership ultimately "is a group activity that works through and within relationships" (Bennett, Wise, & Woods, & Harvey, 2003, p. 3), and these relationships likely are best forged and strengthened through shared activities.

Certainly, trust is a crucial ingredient underlying healthy relationships and its centrality in terms of fostering distributed leadership was evident in this study. Trust has been identified as an important component within highly implemented programs of study (Stipanovic et al., 2012). Additionally, on the basis of their multiple case study findings, Smylie et al. (2007) theorized in regard to the relations between trust and distributed leadership development. They posited (pp. 499-500) that trust "relates to the design and performance of distributed leadership and how it is perceived and accepted," that "the relationship…is dynamic and reinforcing," and that

administrative leadership—particularly, principal leadership—is crucial to the development of distributed leadership. Related, Miller and Hafner (2008, p. 66) observed, in diverse educational partnerships, "the onus is on those who occupy formal leadership positions to ensure…equal participative opportunities." In our case study, the centrality of formal leaders in this regard would be difficult to overestimate, both in terms of their manner of leading and their thoughtfulness in terms of how to structure opportunities for participation. Indeed, they appeared to set the tone by demonstrating trust toward others, for instance by fostering direct connections between teachers and community members and encouraging innovation.

Notwithstanding, what we observed may not represent an ideal leadership configuration in all instances. We suspect the complexity of an initiative or mission determines, to a significant degree, the optimal distribution of leadership, as well as the necessary structures and tools. Pearce (2004) and Gronn (2009a, 2009b) highlight the importance of context and situation, arguing that scholars should move beyond normative approaches, seeking instead to clarify *when* and *why* certain leadership practices are more effective or beneficial than others. In the case of the highly complex college and career readiness reforms undertaken by JHS and RSD 205, success appears to have been predicated upon multiple, diverse contributions. Career pathways, we assume, could only so meaningful or authentic if students did not have direct contact with individuals who work in the field, or if curriculum and learning experiences were not current and tethered to real-life applications.

Significant interdependencies between individuals—including, as indicated, persons outside the organization—were readily evident. As articulated by Gronn (2002b), as interdependencies increase, so too do the reserves of overall leadership capability. These reserves, and related increases of leadership density, are "what makes an organization function

well" (March, 1984, p. 29). However, interdependencies must be managed and coordinated (Gronn, 2002b; Malone & Crowston, 1994). Several of our observations can be interpreted in this manner. For instance, the district, and particularly Mr. Carson and his College and Career Readiness department, plays major communicating and coordinating roles, as do the academy coaches and team leaders. The committee structures are highly important as a means of enabling communication and coordination, within and across academies at the building level, as well as across the districts' high schools. Ultimately, the district was instrumental in the scaling of the JHS pilot to the other schools and simultaneously functioned both to improve the quality of programming and ensure an emphasis on equity. Even the scheduling methodology, which repeatedly surfaced as an ongoing challenge, may be best understood as a coordination mechanism. An ideal schedule would improve the ability of educators to meet in teams and would improve the purity of teachers' and students' academy experiences. Notably, the task of scheduling proved to be of such intricacy that a leader (a national expert on scheduling) was deemed essential, and Alignment Rockford leaders helped to provide the financial resources to secure this individual's time.

Thus, distributed leadership has proven to be a highly useful theory for understanding the process within which the ambitious college and career pathways reforms have taken place at Jefferson High School. Indeed, what we observed appears to represent an example of *highly distributed* leadership—perhaps more so than previously documented within the scholarly literature while employing this theoretical framework. Additionally, the application of distributed leadership practices permitted the JHS principal to shift away from managerial tasks and to refocus his energies on serving as the school's leader of learning. As such, this case pushes the theory's boundaries somewhat, testing its ability to withstand significant complexity and

leadership diffusion. In so doing, perhaps this research will stimulate new thinking about to whom, and under what conditions, leadership may be spread. In the meantime, distributed leadership is brought into the context of college and career pathways reforms, which are notoriously complex and challenging. Accordingly, next we present a small set of recommendations, derived from our research, for educators and their partners who wish to pursue similar reforms.

Recommendations

A number of recommendations can be derived from this study. First, it appears important—perhaps essential—that distributed leadership is fostered in order to effectively develop and implement college and career pathways. To enable this leadership distribution, a strong and collective vision must initially be established, and the principal appears to play a critical role in its formation and acceptance. The vision in the case of JHS hinged on ensuring college and career readiness of *all* students, with a focus on equitable access to high quality learning experiences for every student. The goal is to provide a pathway for all students, whether it entails direct transition from high school to career or, first, to a postsecondary institution. Second, restructuring must be thoughtful and intentional, aimed toward enabling cross-disciplinary collaboration and both formal and informal leadership opportunities. Third, the potential power and expertise of individuals outside the school or district cannot be underestimated, as exemplified by immense contributions in this case. Notably, school leaders encouraged and actively developed these contributions. Finally, a safe and supporting culture, in which ideas are welcomed and trial-and-error is considered part of a continual learning process, appears to be optimal. If educators pursue approaches as illustrated in these cases, we are confident they will be successful and students will profit.

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