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A Distributed Perspective on Instructional Leadership in International Baccalaureate (IB) Schools

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Abstract

Purpose: The purpose of this study is to provide a better understanding of how instructional leadership responsibilities are distributed in International Baccalaureate (IB) schools in East Asia. **Research Design:** Case studies were conducted in five international schools located in Thailand, Vietnam, Hong Kong, and China. These schools were selected on the basis of location in East Asia, the offering of the full continuum of the IB's three programs, and evidence of prior academic success. In total, 68 teachers and administrators and 25 students were interviewed. Qualitative analysis of the interview data was conducted using pattern coding. **Findings:** Three broad instructional leadership practices were identified: curriculum articulation, cross-program activities, and strategic staffing. These appeared to enhance curriculum consistency and coherence across the three IB programs, a problem that had been identified in full-continuum IB schools. The qualitative data suggested

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that distributed instructional leadership forged and sustained professional interactions among staff across programs and organizational units. **Conclusions:** IB schools globally are often structurally separated into two or three organizational units (e.g., primary, middle, high school). These units operate IB programs that, despite their common origin and international philosophy, employ distinct pedagogical and curricular approaches. The findings reinforce the importance of acting intentionally to distribute responsibilities for instructional leadership widely throughout the school. They also support the assertion that international schools offer a unique and fruitful context for studying distributed instructional leadership.

Keywords

distributed leadership, instructional leadership, program transition, curriculum implementation, IB schools

The evolution of leadership theory applied in education settings over the past 30 years has been characterized by two dominant trends. The first consists of an increased focus on exploring the relationship between school leadership and learning (e.g., Bossert, Dwyer, Rowan, & Lee, 1982; Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Hallinger, 2011; Hallinger & Heck, 1996; Leithwood, Louis, Anderson, & Wahlstrom, 2004; Louis, Leithwood, Wahlstrom, & Anderson, 2010). The second is represented in a more recent focus on how leadership practices are distributed among members of the school (Gronn, 2000, 2002, 2003; Harris, 2009; Leithwood, Mascall, & Strauss, 2009; Robinson, 2008; Spillane, 2006; Spillane & Diamond, 2007; Spillane, Diamond, & Jita, 2003; Spillane, Diamond, Sherer, & Coldren, 2004). Over the past decade, these trends have converged in a refocused agenda of global research, policy, and practice on what scholars have termed shared or distributed instructional leadership (e.g., Hallinger, 2003, 2011; Marks & Printy, 2003; Mulford & Silins, 2009; Spillane, 2006).

In this report, we examine distributed instructional leadership in case studies of international schools located in East Asia. International schools have grown dramatically in global popularity in recent years in response to the burgeoning demand for high-quality education characterized by an international orientation and worldwide portability.¹ The International Baccalaureate (IB) schools are a case in point. Since 1999, the number of IB programs offered globally has increased by 370%, with more than 3,400 programs as of 2009 (IB, 2009a). It is projected that there will be 10,000 authorized IB

schools serving more than two million students by 2020 (IB, 2009b). Moreover, the most rapid gains since 2000 have been in Asia and the Pacific, with 407 IB schools currently offering 563 IB programs (IB, 2009b).

To encourage students to become active learners, well-rounded individuals, and engaged world citizens, the IB offers three programs. The Primary Years Program (PYP) is designed for pupils aged 3 to 12 and focuses on the development of the whole child. The Middle Years Program (MYP) is designed for students aged 11 to 16 and emphasizes academic challenge and development of life skills. The oldest of the IB programs, the Diploma Program (DP), is a demanding academically oriented program designed for students aged 16 to 19 that leads to an IB diploma, which is recognized by universities around the world. Although the three programs are intended to represent a *continuum* of K–12 education, they evolved organically rather than strategically and employ quite different approaches to curriculum and instruction. These design-based differences have created a variety of programmatic challenges for leaders in schools that implement multiple IB programs (Hallinger, Walker, & Lee, 2010; Millikan, 2001; Stobie, 2005, 2007).

Each of the case study schools in this research was implementing all three of the IB programs; each was a *full-continuum* IB school. Thus, as suggested above, staff faced the challenge of ensuring that the learning goals of discrete IB programs implemented in different organizational units (i.e., primary, middle, and secondary schools) would cohere into an effective educational program for students as they moved through the full-continuum IB programs. This type of challenge typically requires leadership both to create a common vision of learning as well as to organize and shape structures, culture, processes, and people toward its achievement.

Understanding how school leaders meet this challenge represented the focus of this study. More specifically, we address two main research questions:

- How are instructional leadership responsibilities distributed in full-continuum IB schools?
- How does distributed instructional leadership contribute to more successful transition between programs and schoolwide success?

This research makes three distinct contributions to the literature. First, the research elaborates on both practices and program outcomes associated with distributed instructional leadership. Second, the research enhances our understanding of how leadership is enacted in the context of international schools, an increasingly influential but underresearched domain of education

(Bunnell, 2008; Hallinger, Walker, & Lee, 2010; Hayden, 2006; Walker & Cheng, 2009). Finally, the research offers empirical insights into the exercise of school leadership in East Asia, a region of the world that continues to lack research based on empirical description and analysis (Hallinger, 2011b; Hallinger, Walker, & Bajunid, 2005).

Leadership for Learning

Research on leadership for learning has matured over the past several decades into a phenomenon of global interest. Important contributions have been made by researchers in North America (e.g., Bryk et al., 2010; Hallinger & Heck, 1996, 2010; Leithwood et al., 2004; Leithwood & Jantzi, 2000; Louis et al., 2010), Europe (MacBeath & Cheng, 2008; Southworth, 2002), and Asia and the Pacific (Hallinger, 2011a, 2011b; Mulford & Silins, 2009; Robinson, Lloyd, & Rowe, 2008). In this section of the article, we review literature on leadership for learning from three perspectives. First, we examine its evolution from the related construct of instructional leadership. Second, we examine the gradual convergence of conceptualizations of instructional leadership (Bossert et al., 1982; Hallinger & Murphy, 1985) with notions of distributed leadership (Gronn, 2000, 2003; Hallinger, 2003; Robinson, 2008; Spillane, 2006; Spillane et al., 2003; Spillane et al., 2004). Finally, we examine what is known about leadership for learning in international school settings.

Leadership for Learning: Instructional Leadership

Discussions of instructional leadership can be traced back to the 1950s and 1960s in the United States when scholars first began to inquire into the ways that school principals contribute to student learning (e.g., Bridges, 1967; Gross & Herriot, 1965; Lipham, 1961). However, efforts to formulate more systematic constructs and reliable measures of instructional leadership emerged only during the 1980s (e.g., Bossert et al., 1982; Hallinger & Murphy, 1985), in concert with growing interest in research on school effectiveness and school improvement (e.g., Bossert et al., 1982; Leithwood & Montgomery, 1982; Purkey & Smith, 1983). Over the subsequent three decades, considerable empirical research has been conducted on instructional leadership, with reviewers concluding that the construct captures a central facet of the school leadership role (Hallinger, 2011a, 2011b; Hallinger & Heck, 1996; Leithwood et al., 2004; Robinson et al., 2008). For example, a recent study conducted in Chicago public schools with extensive data and

rigorous analysis reaffirmed that leadership in general, and instructional leadership in particular, functions as “the driver for change” for school improvement (Bryk et al., 2010, p. 61). This appears to be especially true in elementary schools (Heck & Hallinger, 2009; Louis et al., 2010).

The most widely applied instructional leadership model was developed by Hallinger and Murphy (1985) in the United States during the early 1980s. This model proposes three dimensions and 10 leadership functions that compose the instructional leadership role of principals: *defining the school's mission*, *managing the instructional program*, and *promoting a positive school learning climate*. The first dimension, *defining the school's mission*, concerns the principal's role in determining the central purposes of the school. The second dimension, *managing the instructional program*, focuses on the coordination and control of instruction and curriculum. The third dimension, *promoting a positive school learning climate*, conforms to the notion that effective schools evidence a culture of “academic press” and continuous improvement (Hallinger, 2011; Hallinger & Murphy, 1985).

We note that from the 1950s through the 1980s and into the 1990s, the literature on instructional leadership centered quite explicitly on the role of the principal (e.g., Bridges, 1967; Edmonds, 1979; Hallinger, 2011; Hallinger & Heck, 1996; Hallinger & Murphy, 1985; Leithwood & Montgomery, 1982; Lipham, 1961; Murphy & Hallinger, 1992; Robinson et al., 2008). This tacit association of leadership with the principal often led to interpretations of instructional leadership as a *functional role* associated with the formal hierarchy of the school. This perspective was inadvertently reinforced by the fact that the effective schools literature had focused on “turn-around schools” in need of urgent change (Bossert et al., 1982; Edmonds, 1979; Purkey & Smith, 1983). Improvement in these environments probably required directive leaders who focused on changes in curriculum, teaching, and learning (Bossert et al., 1982; Edmonds, 1979; Hallinger, 2011).

However, on a practical level, a major impediment to sustainable school leadership lies in trying to lead the school on one's own (Barth, 1990; Donaldson, 2001). As soon as a principal takes on the challenges of going beyond the basic demands of the job, the leadership burden becomes much heavier (Barth, 1990; Cuban, 1988). The implication of this observation was captured by Lambert (2002), who asserted, “The days of the lone instructional leader are over. We no longer believe that one administrator can serve as the instructional leader for the entire school without the substantial participation of other educators” (p. 37).

Over time, empirical research came to focus on both *forms* and *effects* of instructional leadership (Dwyer, 1986; Hallinger, 2011; Robinson et al.,

2008). A recent meta-analysis of the school leadership effects literature conducted by Robinson and colleagues (2008) indicated that instructional leadership appeared to offer the greatest leverage for understanding the contributions that leadership makes to learning when compared with competing constructs (e.g., transformational, transactional, strategic leadership). The meta-analysis reconfirmed earlier assertions that instructional leadership should be conceptualized as producing effects on learning *indirectly* by shaping structures and norms of the school in response to the needs of the school and its environment (e.g., Hallinger & Heck, 1996; Leithwood et al., 2004).

Even more recently, studies by Mulford and Silins (2009) and Hallinger and Heck (2010) have further elaborated on the notion of indirect instructional leadership by proposing that school leadership is a process of mutual influence. In the words of Mulford and Silins (2009), “[S]uccessful school principalship is an interactive, reciprocal and evolving process involving many players, which is influenced by, and in turn, influences the context in which it occurs” (p. 2). We wish to suggest that empirical support for conceptualizing instructional leadership effects as both *mediated* and *reciprocal* in nature implies the need to explore this construct beyond the role of the principal.

Leadership for Learning: Distributed Leadership

Over the past decade, several scholars have sought to conceptualize and empirically examine how leadership is distributed in schools (e.g., Gronn, 2000, 2003; Harris, 2009; Leithwood et al., 2009; Robinson, 2008; Spillane, 2006; Spillane & Diamond, 2007; Spillane et al., 2003; Spillane et al., 2004). Although distributed perspectives on school leadership have shed fresh light on complex leadership structures and processes, the definition of distributed leadership varies widely among users of the term (Flessa, 2009; Mayrowetz, 2008). With this in mind, we wish to begin with a discussion of how this term was employed in the current study.

We begin by identifying a necessary condition for distributed leadership—multiple leaders. This “leader-plus perspective” highlights the fact that distributed leadership involves multiple agents contributing to the enactment of leadership (Grubb & Flessa, 2006; Heller & Firestone, 1995; Spillane, 2006). At the same time, proponents of distributed leadership assert that the leader-plus perspective captures only a portion of the meaning of this construct (Spillane, 2006). For example, Gronn (2002) proposed that distributed leadership is more than the aggregate of actions taken by multiple actors and

distinguished between the concepts of “concertive action” and “numerical action” (p. 429).

Gronn (2002) identified three types of concertive action as distributed leadership: spontaneous collaboration, intuitive working relations, and institutionalized practices. Spontaneous collaboration is defined as naturally occurring interactions among staff as they seek to accomplish tasks. Successful features of these interactions may later become adopted as working practices, even if the working team disbands. Intuitive working relations are represented by the common understandings and shared approaches to working that can result from close interdependency among team members over a period of time. This interdependency can trigger the development of distributed leadership practices among members to achieve shared goals. Institutionalized practices are formalized in organizational structures such as school management committees (p. 430).

Gronn (2002, p. 434) suggests that these concertive forms of distributed leadership are intertwined with another condition—that is, whether concertive actions are based on joint work in the same or proximate site (i.e., coperformed work) or collaboration across different sites (i.e., collectively performed work). Spillane’s (2006) typology of distributed leadership overlaps with Gronn’s, but he adds one additional type, which he calls coordination distribution, which he refers to as “sequentially arranged leadership tasks” (p. 67).²

Drawing from this discussion, we adopted a view of distributed leadership as collective interactions among school members taking leadership responsibilities. These collective interactions are embodied in three modes of conjoint agency: coperformed, collectively performed, and coordinated work (Gronn, 2002; Spillane, 2006). Those interactions can be also formed by three different types of concertive actions: spontaneous collaboration, intuitive working relations, and institutionalized practices (Gronn, 2002).

Equipped with this perspective, we note that this study focused more specifically on the distribution of *instructional leadership* practices. Prior research has shown that principals’ support for cultivating teacher growth is important in distributing instructional responsibilities among teachers (Robinson, 2008). For example, Rosenblum, Louis, and Rossmiller (1994) found that principals’ provision of resources and instructional support fostered shared responsibilities among teachers. In this context, principals are viewed as facilitators for teacher professional growth rather than supervisors of their activities (Poole, 1995). This shift in role behavior can motivate teachers to accept principals’ support (Blase & Blase, 1999). Teachers’

willingness to engage in professional learning can be facilitated through collective interactions.

More recently, empirical studies have illuminated some of the means by which multiple individuals enact instructional leadership through mentoring peers and providing professional development. Notably, Spillane and colleagues' (2003, 2004) research sheds light on a less frequently examined feature of instructional leadership—that is, the relationship between material artifacts (tools) and leadership. According to Spillane's research, a variety of tools (e.g., test scores, district standards, technology-based tools, curricular frameworks) existing in the school can be employed to coordinate and enhance the work of multiple leaders. Spillane asserts that instructional leadership becomes "*stretched over* [italics original] multiple individuals and tools" (Spillane, 2003, p. 538) through the "collective interactions among leaders, followers, and their *situations* [italics added] [over time]" (Spillane, 2006, p. 3).

To identify these tools, it becomes necessary to explore leadership in the contexts where it is enacted (Spillane, 2006). Therefore, our analysis seeks to identify and explore (a) tools that compose distributed instructional leadership practices as well as (b) the school contexts or situations in which these tools have evolved (Louis, Mayrowetz, Smiley, & Murphy, 2009; Scribner, Sawyer, Watson, & Myers, 2007; Spillane, 2006; Spillane et al., 2003).

Finally, we wish to note some of the nuanced differences between distributed leadership and related terms. Shared leadership (e.g., Barth, 1990; Lambert, 2002; Marks & Printy, 2003) has been mainly conceptualized with the focus of teachers' involvement in formal *decision making*—that is, "teachers' influence over, and their participation in, school-wide decisions with principals" (Louis et al., 2010, p. 40). Hallinger and Heck (2010) used the term *collaborative leadership* in a similar fashion, referring to collective leadership among individuals regardless of their formal role. Thus, these terms focus on numerical action with an emphasis on illuminating how roles, responsibilities, and positions are shared by multiple agents (Spillane, 2006).

As discussed earlier, the leader-plus aspect is a necessary but insufficient condition for capturing the concept of distributed leadership (Spillane, 2006). In theory, leadership responsibilities or practices can be deployed or distributed across the school organization, even though school members do not share the same values or goals. Likewise, depending on the situation, distributed leadership can be more or less collaborative if multiple leaders exert their legitimate influence on other colleagues in contradictory directions when leading schools (Spillane, 2006).

Leadership for Learning in International Schools

Research on leadership research in international schools has yet to develop as a field of systematic inquiry (Bunnell, 2008; Hallinger, Walker, & Lee, 2010; Hayden, 2006; Walker & Cheng, 2009). Indeed, we were able to identify only a dozen empirical studies with this focus, of which only about half were published (i.e., Biro, 2003; Bunnell, 2008; Gilliam, 1997; Halicioglu, 2008; Hawley, 1994, 1995; Hayden & Thompson, 2008; Jabal, 2006; Keher, 2004; Lee, Hallinger, & Walker, in press; McGhee, 2003; Melton, 2003; Riesbeck, 2008). The dearth of empirical research on leadership in international schools is further accentuated if we limit our focus to *non-Western* school contexts (e.g., Bunnell, 2008; Jabal, 2006; Lee, Hallinger, & Walker, in press).

We wish to take note of the few studies that have sought to understand the exercise of leadership in international schools. Based on a survey of 30 international school principals in the United States, Melton (2003) found that a majority of the principals viewed themselves as serving as instructional leaders.

Riesbeck's (2008) study identified factors contributing to the success of IB DPs in 30 IB schools in the United States by comparing *top decile* and *bottom decile* schools defined by IB pass rates. According to the study, principals in top decile IB schools exhibited four leadership characteristics perceived by their teachers: modeling professional behavior, promoting their IB programs to the public, being enthusiastic about their IB programs, and exhibiting good public relations skills. At the same time, however, the IB teachers across all of the schools did not perceive a "need for instructional leadership" from their IB leaders (p. 124). Riesbeck suggested that this could be because the IB teachers define themselves as experts in their own subject areas.

In contrast, Hallinger and colleagues' (2010) research found that that the complexity of the formal organization of full-continuum IB schools created a demand for instructional leadership from school staff operating in different organizational layers. These include a school head, school-level principals (e.g., primary, middle, secondary), vice principals, subject heads, and IB program leaders (e.g., PYP, MYP, DP). In other words, the organizational structure of full-continuum IB schools creates a context that is populated by multiple leaders, a necessary but insufficient condition for distributed leadership. In concert, the high level of resources and rigorous program standards required by the IB tend to create a complex, enriched context for curriculum

Table 1. General Information on the Case Schools

Name of School	School Size	Decade Founded	Faculty–Student Ratio	No. of Student Nationalities	Average DP Subject Grade ^a
School 1	1,410	1990	1:8	50	5.38
School 2	475	1990	1:7	35	5.59
School 3	892	1980	1:5	51	5.33
School 4	1,748	2000	1:16	40	5.12
School 5	1,450	1990	1:7	54	5.36

Note. DP = Diploma Program. All information is based on the year 2009. For the anonymity of interview participants, some school information such as location, country, and mission statement is not presented in the table. For the same reason, the exact year each school was founded is not provided.

a. The average subject grade in IB schools around the world in 2009 was 4.69.

design, cross-grade teacher collaboration, coaching, and teacher development in full-continuum IB schools. We, therefore, suggest that these features of full-continuum IB schools offer a useful opportunity for studying the enactment of distributed instructional leadership.

Method

As part of a larger, multimethod study, we conducted case studies of five schools (Yin, 1994) for the purpose of investigating instructional leadership strategies associated with successful IB program implementation. Five IB schools in Thailand, Vietnam, Hong Kong, and China were selected from a list of IB schools in East Asia, after considering a variety of school characteristics.³ First, we reduced the list to full-continuum IB schools. The IB organization further reduced the number of potential schools to those that had been assessed as successful in terms of program implementation during school evaluation studies conducted over the prior several years. Then school performance was considered. On average, the selected schools all showed significantly better school performance in the DP-level mean subject grades than IB schools around the world (see Table 1). Finally, we also considered diversity in terms of country, school size, and type of student populations (see Table 1).

Data Collection

We collected data mainly through interviews with teachers, administrators, and students. In total, 68 teachers and administrators as well as 25 students

were interviewed. A majority of administrators (i.e., principals, vice principals, department heads, IB coordinators) were interviewed individually. Most of the teachers and students were interviewed in focus groups (see Appendix A for details). The interview protocol focused on the learning culture, challenges and changes in the MYP–DP transition, leadership and management, and monitoring and assessment. This semistructured interview protocol sought to reveal staff members' and students' perceptions of school characteristics and practices that affected the students' experience and transition through the three IB programs.

At least two interviewers were involved in interviews at each school. This approach enabled us to cross-check questions and interpretation of responses. In addition, the approach enabled one interviewer to generate impromptu but important interview questions while the other interviewer asked planned questions. All interviews were audio-recorded. After each interview, we wrote analytic memos based on our impressions and reflections to capture more nuanced information.

We also conducted in-school observations (i.e., 13 classroom observations) to fill out and check impressions gained through the interviews. At the same time, we developed detailed descriptions of the schools, including school history, school mission and goals, organizational charts, job descriptions, performance outcomes, meeting agendas, and task forces. These diverse data were synthesized to develop narrative descriptions of each of the schools.

Data Analysis

An iterative process was employed in conducting the interviews across the school sites, following the constant comparative method (Corbin & Strauss, 1998). We developed a coding scheme based on patterns emerging from the interviews and the results from quantitative survey data collected from 175 IB schools throughout the world.⁴ We developed 52 initial codes in terms of school context (12 codes), school culture (8 codes), leadership and management (8 codes), and program implementation and transition (24 codes). To reduce large amounts of our interview data into a smaller number of analytical units based on similar themes (see Appendix B for brief descriptions about major themes), we conducted pattern codings (Miles & Huberman, 1994).

Several efforts were made to ensure trustworthiness (Lincoln & Guba, 1985) of the data analysis. To enhance credibility, we checked possible factual errors in our interview data by cross-checking with each principal of the selected schools and relevant archival data. We used our analytic memos, observations, and archival data in triangulating the interview data. We also

sought feedback from other members of the multicultural interviewing team (i.e., an American, Australian, Chinese, Korean). This feedback-solicitation process enabled us to surface alternative interpretations of the same transcript and contributed to a better understanding of seemingly discrepant statements.

In addition, we believe that the iterative process of data collection across the school sites contributed to the dependability of our study (Lincoln & Guba, 1985). Specifically, for all interviews, at least two interviewers using the same interview protocol were involved to (a) gather data in the same framework and (b) cross-check key questions. Two data analysts coded the data independently and then checked data coding with a partner. To ensure dependability in general and coding reliability in particular, interrater reliability was checked with 10 randomly selected interview files (78% of agreement). Finally, we attached the interview data scheme for an “audit trail” (Schwandt & Halpern, 1988). All data were organized using NVivo 8 software, which contributed to improving the audit trail and replicability of this study.

Findings

In this section, we employ our case study data in an attempt to illuminate the nature and effects of distributed instructional leadership in these full-continuum IB schools. We first outline the contextual conditions that shaped leadership in these schools. Then we examine how instructional leadership was distributed in response to those conditions. Finally, we explore how and why these leadership practices contributed to successful IB program transition.

School Contexts for Leadership

Three major contextual conditions were associated with program transition. First, data suggest that the school contexts presented challenges to successful implementation of multiple IB programs. The case schools needed to address parents’ different pedagogical understandings or lack of understandings about the IB programs.

Secondary school principal, School 2: A lot of Asian students come from countries that are very exam oriented. And so the inquiry-based learning process and project-based learning are something initially frankly unsettled to some of those populations, especially the PYP. . . . So there’s a lot of parent education that has to occur. . . . I think, their

[parents'] stress and strain is more of "oh there is no exam so how can we know that kids are learning" that kind of thing or "oh there is no exam so how can we know that it is rigorous." "My kid should be studying for exam" or "if they do not have that type of academic experience, they must not be working hard or something." So there's a lot of [parent] education that goes with that.

Another contextual challenge derived from structural features of the schools. Although the schools were not very large, they were complex in terms of both sociocultural and structural features. Each of the schools was composed of both staff and students hailing from literally dozens of countries. Although cultural diversity was celebrated in these schools, it also presented challenges in communication, parental involvement, curriculum and instructional organization, and teamwork. Structurally, each school was composed of three composite organizational units (i.e., a primary school, middle school, and high school) as well as three distinct IB programs. Each of the five schools was overseen by a headmaster, who supervised school-level principals. The school principals managed an administrative staff composed of assistant principals, grade level and/or subject heads, and IB program coordinators. We suggest that this sociocultural and structural complexity created a rich context for the emergence of distributed instructional leadership.

Another distinctive factor concerned differences in pedagogical approaches embedded in the three IB programs (see Stobie, 2005, 2007, noted earlier). In practice, each program generated different interpretations of the meaning of what it meant to be teaching or learning in an IB program. The external IB diploma exams and university requirements functioned as constraints and shaped different learning cultures, learning styles, teaching methods, and assessments across the MYP and the DP in particular.

DP coordinator, School 3: It is what the university wants. . . . So, the MYP is far more based upon the processes and skill oriented where the DP is very much content driven. It [DP] is 240 hours. We are just bombarding 240 hours' teaching time for [IB 2010] May exams. There is very little time to create [inquiry-based] learning of those because you've got only half an hour to teach one batch, and you've got to go direct.

These contextual conditions shaped the attempt of these schools to produce a well-integrated educational program under the umbrella of the IB programs. After listening to the staff describe these challenges, we identified three sets of leadership strategies that appeared to enable the schools' attempts

to respond productively to these conditions: articulation, cross-program activities, and staffing.

Articulation Strategies

First, we observed a much higher level of structural interdependence in these schools than has been described in schools more generally (Weick, 1976). This was apparent in the design of both administrative (i.e., three school principals under the school head) and curriculum organizational structures (i.e., three IB program coordinators). Although most of time the leaders worked separately, they were well aware of the importance of administrative and programmatic interdependence to their individual and collective success. Although the features of the organizational structure may have created the *need* for multiple leadership roles, this alone would not necessarily produce the distribution of leadership.

Nonetheless, we observed that leadership practice in these schools did reflect features of both numerical and concerted action as described earlier. Leaders from three programs were attempting to establish copformance leadership practices through the articulation of curriculum linkages between programs, practices that became institutionalized. As school leaders recognized problems and tensions in transition between programs (e.g., lack of consistency and coherence),⁵ they searched for new “leadership routines” through which school leaders can work together with physical proximity (Dwyer, 1986; Gronn, 2002), which we term articulation strategies.

Articulation strategies sought to enhance curriculum coherence among programs within a school. There were two broad types of articulation strategies: (a) backward mapping and (b) documentation. These represented important “leadership tools” employed by leaders across hierarchical positions, levels, and subjects in the schools (Spillane, 2006; Spillane et al., 2003).

Backward mapping was a form of collaborative inquiry designed to chart missing links in curriculum between different IB programs. This was largely initiated by leadership teams that consisted of IB coordinators (PYP, MYP, and DP), building-level principals (primary, secondary), and/or subject heads. In other words, backward mapping was a tool that engaged and facilitated the work of multiple leaders (e.g., principals, vice principals, and three program coordinators). This tool was commonly featured in leadership routines (e.g., senior leadership team meetings) in the case schools. Backward mapping focused on identifying and creating coherence in the “skills and knowledge” that students are expected to attain when they reach the final stage of the IB program.

Middle school principal, School 5: I would say that more and more we are realizing that we are now in the process of articulating. We articulate our curriculum is actually looking at it backward; sort of model, looking at what is demand for [the] DP and then looking what skills and knowledge base these students need to have to transition smoothly into the DP. . . . And it is being done *on routine* [italics added] and perhaps a little bit on ad hoc. Maybe that's even not so true but maybe not as clearly focused now as we are now doing. And we are mapping our curriculum and we are articulating our curriculum and looking for gaps that may exist.

Backward mapping was an institutionalized leadership routine that enabled the articulation of curriculum linkages between different IB programs. Articulation through backward mapping served as a form of instructional support that supported the capacity of individual teachers to achieve curriculum coherence (Conley & Goldman, 1994; Rosenblum et al., 1994) across the different IB programs. In other words, articulation through backward mapping functioned as an *instructional leadership tool* through which instructional leaders exerted their legitimate influence (i.e., leadership practice; see Gronn, 2002) on curriculum and instruction.

Documentation was also used as an articulation tool across the schools. School 2 was especially active in employing this approach. Through an Articulation Committee, School 2 tried to create an "overarching school philosophy statement" beyond the three individual school-level programs. Committee members used *IB learner profiles* (i.e., a set of schoolwide learning outcomes) as a tool to create coherence across the programs.⁶ For example, a PYP coordinator stated,

PYP coordinator, School 2: We also looked at the commonalities in the three programs and decided to look at the profile and used it as a tool between the three programs; that's how we capitalized . . . on what all the three programs share, and that's how we made that more evident schoolwide.

In a similar vein, School 5 used documentation to provide more concrete instructional guidelines to enhance curriculum consistency.

Director, School 5: I am talking about the three parts [PYP, MYP, DP] that you want the students to know and understand. . . . And what we are doing now is developing an overarching guideline schoolwide that we would make a statement, which is how we define the curriculum.⁷

Staff in School 5 used Rubicon, an information and communication technology tool, to further support curriculum articulation. Teachers and IB coordinators formed a cross-program curriculum team that aimed at “trying to bridge” gaps between the IB programs by creating “a continuum of learning” (PYP coordinator, School 5). This represented instructional leadership practice as “coperformed work” at the institutional level (Gronn, 2002).

MYP coordinator, School 5: [O]ne of the tools to actually realize that goal [articulation] was to actually develop a curriculum development team . . . so the three curriculum coordinators are automatically there and then the teachers apply to be on the team, they get a stipend. And that team is actually involved in things like action research projects at the moment. But one of the areas that was a big part of that was actually Rubicon, which is . . . a curriculum mapping device program.

In summary, a variety of articulation tools facilitated interaction with colleagues from different IB programs as well as different subject departments and school levels. These tools were not, however, just simple aides or accessories to efficient leadership practice. Tools such as documentation and Rubicon appeared to both trigger and mediate interactions among school staff across different organizational boundaries and layers (Spillane, 2006). Thus, we suggest that articulation can be conceptualized as an institutionalized practice of distributed instructional leadership that is “influenced by, and in turn, influences the [school] context in which it occurs” (Mulford & Silins, 2009, p. 2).

Cross-Program Activities

Articulation practices were usually initiated by senior leaders to improve consistency in the implementation of curriculum, teaching, and assessment across the three programs. In contrast, cross-program activities were *sustained* by IB coordinators and teachers. In other words, teachers accepted responsibility for providing collegial support focused on teaching and learning through cross-program activities.⁸

Cross-program activities engaged staff in learning more about the other programs. These ranged from formal meetings such as staff meetings and schoolwide workshops where multiple staff enacted varied leadership functions.⁹ In addition, we wish to highlight the density of both formal and informal cross-program interactions. Notably, since it was not uncommon for teachers

in the case schools to teach in more than one program, their responsibilities often overlapped. This created a higher level of staff interdependence, which in turn triggered distributed instructional leadership (Gronn, 2002; Spillane, 2006; Spillane et al., 2003).

Meetings were often designed by a group of people (i.e., three IB program coordinators) who closely collaborated with each other to provide professional development for teachers (e.g., cross-program workshops on IB learner profiles). Thus, cross-program meetings often engaged three IB coordinators in collaborative work in the same site, a form of coperformed work (Gronn, 2002) or collaborated distribution (Spillane, 2006). In summary, formal cross-level meetings functioned as routinized channels that stimulated interactions between teachers and administrators from different programs.

Primary school principal, School 5: [W]e continue developing the learner profile across the whole school. Our Grade 5 teachers now meet, not regularly, but as often as they can with Grade 6 teachers to see if there is continuity between what kids learn in Grade 5 and what the Grade 6 teachers are expecting them to start. So there's a lot more of *dialogues* [italics added] in there that goes in between some of those teachers.

Another important type of cross-program activity was labeled cross-program involvement. This includes (a) cross-program teaching (i.e., where teachers teach more than one program such as both MYP and DP) and (b) cross-program cooperation (i.e., where teachers act as a mentor or project supervisor in another program). These two types of cross-program involvement represented strategically deployed cross-program interactions. These cross-program interactions were encouraged by senior leaders, but at the discretion of individual teachers. The interactions were often sustained over the course of a full school year and durable in that the practice was repeated in subsequent years.

Through these forms of cross-program involvement, many more teachers in the case schools exercised instructional leadership through interactions with colleagues working in different school units, grade levels, departments, and programs. This distributed leadership activity enhanced understanding of the schoolwide mission and fostered a sense of collective responsibility for its achievement. We wish to illuminate this feature of distributed instructional leadership through the two types of cross-program involvement in greater detail.

Cross-program teaching. This was the most salient phenomenon of cross-program involvement identified across the five schools as described in the following excerpt for example: “The biology teacher teaches Diploma and also teaches Grade 9 or 10 biology. And that is the same in a lot of subjects. You have teachers who teach across programs” (DP coordinator, School 3). Although cross-program teaching was commonly identified in the five schools, there were two underlying reasons why they employed cross-program teaching. First, cross-program teaching was viewed as a vehicle that enhanced program coherence.

MYP-DP humanities teacher, School 1: I think it [cross-program teaching] is hugely important insofar that the DP teachers have a sense of the expectation and the rigor of the MYP. . . . Certainly the MYP teachers . . . know where the kids are coming from and they can engage the kids at the necessary level. But what the Diploma teachers don’t want to do is to go back and start teaching critical reading skill, synthesizing skill, or analytical skill. The assumption is that by the time students get to [the] Diploma, they’ve done that. . . . That is really important to have a successful transition between the two programs. [In this sense] teaching across the programs is, I would argue, essential.

Second, cross-program teaching served as a source of learning and pastoral support for students. Quite a few DP students, reflecting on their experience, observed that having the same teachers who taught them in the MYP reduced the impact of different curricular approaches between the DP and MYP. Both principals and teachers further observed that cross-program teaching contributed to teachers’ understanding of the whole IB program.¹⁰

Middle school principal, School 4: One of the important things is that all of our DP teachers are MYP teachers.

Interviewer 2: Is that by design or is that purposeful?

Middle school principal, School 4: There’s a sense of purpose in there, in other words, we would try not to have a teacher who is delegated strictly to [the] DP.

Interviewer 2: So what’s the rationale for having the MYP in the DP?

Middle school principal, School 4: The rationale . . . we’re helping teachers to spread themselves across [the programs]. . . . Because what we don’t want to do is to compartmentalize so we don’t want a teacher that has an only DP experience, who does not know where their knowledge background is. They need to know what

skills students are bringing to [the] DP. They need to know what's going on with students last years. . . . So we don't end up with a DP specialist and MYP specialist.

In sum, cross-program teaching was a formally routinized (or institutionalized) practice that fostered collective responsibility for instructional leadership. Instructional leadership was broadly distributed and integrated into the daily interactions and practices of staff. This fostered common commitment to a common vision as well as understanding of the curricular frameworks underlying the different programs.

Cross-program cooperation. Cross-program cooperation was observed in teachers' involvement in another IB program's main project. This involved teachers mentoring students in different programs.

PYP coordinator and vice principal, School 2: We have PYP teachers involved with the personal projects [i.e., a culminating event for MYP students to demonstrate their skills and knowledge]. So, the personal project—that's really important that we have the Grades 6 and 7 teachers as mentors for the 11th graders, and so we do a lot of cross-grade work—to the primary principals teaching TOK [theory of knowledge].¹¹ So, I think what is important is to have a strategy where people [supporting and mentoring the students] come from different programs.

Head, School 2: There's a lot more of work going now on between primary and secondary, for example, the personal project. We have some primary staff who are supervisors for the personal projects. . . . In primary school when we do the exhibition [i.e., a culminating event for PYP students], we ask secondary school teachers to go down and support those areas. If it's a science thing we might have a science teacher involved and we also ask teachers in secondary school if they're interested in helping to mentor small groups of students with their exhibitions work.

Drawing from the excerpts noted above, cross-program cooperation was similar to what Gronn (2002) describes as "an added advantage of specialization within a role set" (p. 433). Teachers were harnessing the advantage of different specialties or expertise brought by colleagues to their work through frequent shared talks about students' personal projects. This can be viewed as multiple leaders performing a similar leadership function in a collaborative fashion (Spillane, 2006; Spillane et al., 2003).

In addition, school leaders' facilitation (or stimulation) of cross-program cooperation activities was viewed as legitimate instructional leadership practice by teachers.

PYP Teacher 3, School 1: [W]e are privileged to be involved in personal projects and realize how hard it is.

Interviewer 1: Let me just clarify. So you are in the PYP section and are now involved in . . .

PYP Teacher 3, School 1: . . . personal projects.

PYP Teacher 2, School 1: . . . as mentor for the children who are doing the personal projects.

Interviewer 1: Why?

PYP Teacher 3, School 1: Because it widens our involvement in this school, we see how everybody is interested and so I think seven of us just took it on.

Interviewer 1: Why was it offered, and why did you take it on?

PYP Teacher 3, School 1: I think . . . there is a collegiality . . .

PYP Teacher 2, School 1: . . . to bring the school together.

PYP Teacher 3, School 1: . . . and to give the staff an opportunity to grow not just in one area of expertise. They [school leaders] try to build a professional learning community, and that is one of the ways that they can do that.

This excerpt highlights the role of distributed instructional leadership in fostering opportunities for teachers' professional growth and instructional improvement (Robinson, 2008). It suggests that the distribution of instructional leadership may result in more in-depth understanding of teachers' needs as well as higher motivation among teachers for maximizing those opportunities (Blase & Blase, 1999). Over time, we suggest that the density of such interactions creates a culture and professional norm that further encourages teachers to take on leadership responsibilities (Little, 1990). In this regard, the leadership relationship between leaders and teachers is interactive and reciprocal (Hallinger & Heck, 2010; Mulford & Silins, 2009). This feature of distributed instructional leadership practice seems to stimulate teachers who are structurally compartmentalized in a particular program, department, or building to forge collective perspectives.

Strategic Staffing

Another distinctive leadership practice for deploying instructional responsibility across the school was strategic staffing. We identified three types

of staffing practices that fostered instructional leadership among school staff.

First, most principals in the case schools tended to prefer hiring teachers who possessed previous IB teaching experience, although this was seldom stated as a requirement. As a result of this hiring strategy, many teachers in the case schools brought prior IB teaching experiences with them to the current school. The principals contended that hiring people with prior IB experience enabled a smoother and more rapid alignment of new teachers with school philosophies and goals because newcomers were already equipped with a common language. Here common language refers not only to IB jargon (e.g., theory of knowledge, learner profile) but also to common perspectives on IB practices (e.g., international orientation, student projects, inquiry learning approach).

Common language acted as a *tool* that actually enabled instructional leadership to be distributed more widely and possibly more effectively. Shared understanding of IB programs between newcomers and existing staff supported coherence in cross-program implementation in terms of curriculum, teaching, and assessment.¹² We note that all of the case schools maintained quite extensive ongoing programs of professional development designed to ensure that this common language was both co-constructed and shared. Armed with a common language, a wider array of leaders could act on behalf of shared goals.

Second, the *situation* whereby many teachers gained cross-program experience enabled distributed leadership through multiple positioning. A common case of multiple positioning was found where one person took charge of more than one position in *different* programs. Cross-program teaching is an example of multiple positioning. Cross-program involvement such as MYP teachers mentoring PYP student projects is another usual case of multiple positioning. Furthermore, administrative staff (e.g., Schools 3 and 4) sometimes held secondary administrative positions (e.g., assistant principal and IB coordinator) or maintained teaching responsibilities.

In addition, position switching was also identified as an intentional strategy in several schools. For example, in School 1, two teachers who had taught MYP for several years subsequently switched to the DP. This type of multiple positioning aimed to enhance curriculum coherence and curriculum consistency by allocating instructional resources and support to different levels of organizational layers. In this regard, multiple positioning can be framed as another tool that distributes instructional leadership.

In summary, in the case schools, leaders did not create new administrative positions to distribute leadership responsibility. Rather, multiple positioning (including intentional position switching) was used as a way of redesigning

existing positions to create the distribution of leadership responsibility. As a distributed form of leadership responsibility, multiple positioning created opportunities for teachers and administrators to perform various leadership functions. This is clearly different from the conventional division of labor in which one individual member performs a particular leadership function according to his or her position. At the same time, it should be noted that although multiple positioning seems to be efficient for the purpose of fostering cross-program coherence, it depends on the school staff's proactive attitude and willingness to take on *extra* work (i.e., organizational citizenship).

Creating a culture in which the staff is willing to accept or even volunteer to take on these sometimes diffuse responsibilities represents a leadership challenge. As noted above, however, formal school leaders' practices for promoting cross-program activities were viewed as authentic instructional support, especially when there was a strong sense of professional commitment (or professional communities) among teachers in their schools. Within the similar context, using multiple positioning and position switching as a vehicle for (re)allocating instructional resources seemed to be feasible.

Conclusions and Implications

The purpose of this multisite case study was to examine instructional leadership in five K–12 international schools in East Asia. Each of these full-continuum IB schools had achieved success in implementing all three of the IB programs. Researchers had previously reported a variety of structural conditions and curricular discontinuities that appear to create significant challenges for schools that sought to implement multiple IB programs. Moreover, specifically the structural conditions of these school settings require a higher degree of staff interdependence than most schools typically have to achieve successful outcomes for students.

Thus, we suggest that overcoming the structural complexity of these school settings calls for instructional leadership. We note that the headmasters and principals (i.e., primary, middle, and secondary levels) operating in each of the five schools appeared to be knowledgeable, engaged instructional leaders. Yet our interview data clearly indicated that successful implementation of these cross-level programs had not resulted from strong instructional leadership exercised by the principals. Instead, these were stories of distributed instructional leadership that was deployed through a web of interactions among multiple players, including but not limited to formal leaders.

Contextualized Instructional Leadership

Consistent with prior research, we found that contextual features of these schools shaped the enactment of instructional leadership practice (e.g., Dwyer, 1986; Goldring, Huff, May, & Camburn, 2008; Hallinger, 2011). These K–12 international schools embodied complex structural and sociocultural systems. Even though the schools were well resourced, with strong faculties and supportive parental communities, adoption of the multiple IB programs presented challenges, and success was by no means guaranteed. This research was undertaken in response to a broadly held perception that many IB schools were, in fact, failing to achieve the full benefits of implementing multiple IB programs. The goal of the broader study was to understand factors that were enabling successful IB schools to maintain the distinctiveness of the three differentiated IB programs while maximizing their combined effects. It was in the context of this research that distributed instructional leadership emerged as a potential explanatory factor.

Distributed Instructional Leadership

Following conceptualizations offered by Gronn (2002) and Spillane (2006), we focused on exploring the distribution of instructional leadership. Exploration of data that described these practices made it apparent that instructional leadership was widely distributed among both formal and informal leaders. Moreover, we identified three broad instructional leadership practices that seemed to enable and support interaction among teachers, teacher leaders, and administrators both within and between IB programs. These were articulation strategies, cross-program activities, and staffing practices.

We demonstrated how the utilization of tools for articulation frames how the instructional leadership practices are deployed in the case schools. We also found that cross-program teaching was an institutionalized leadership practice in that it facilitated teachers in taking collective responsibility for instructional matters by providing stable organizational channels for them to experience curricular frameworks of different programs. Similarly, cross-program cooperation was also an organizational venue from which teachers obtained “an added advantage of specialization within a role set” (Gronn, 2002, p. 433) by capitalizing on the advantage of different specialty or expertise brought by their colleagues to their work. In addition, multiple positioning (including the intentional position switching) was used as a way of redesigning existing

positions to forge the distribution of leadership responsibility. Because of the limitations of this case study design, we can only suggest that these instructional leadership practices contributed to school success by creating connective tissue that bound programs and people into a more coherent whole.

Implications for Research and Practice

Our findings offer implications for practice and research on distributed instructional leadership. As distributed school leadership is a construct whose theoretical underpinnings are of relatively recent vintage, the empirical literature on distributed school leadership remains rather thin (Leithwood et al., 2009). Thus, although this construct has the potential to address several underlying dilemmas concerning the enactment of leadership in school settings, scholars have called for more descriptive and analytical studies of distributed school leadership in diverse school contexts (Heck & Hallinger, 2009; Leithwood et al., 2009; Robinson et al., 2008). The current study addresses this need by offering in-depth description as well as analytical insights into how the distribution of instructional leadership addresses the challenges that face a particular type of school.

Facilitated instructional leadership. In these international schools, the formal leaders tended to act as facilitators of instructional leadership among others rather than as instructional supervisors (Hallinger & Heck, 1996; Poole, 1995). As Ogawa and Bossert (1995) pointed out, the currency or value of instructional leadership lies in the capacity to mobilize the collective resources of school members and is fostered through their collegial interaction around important issues of teaching and learning (cited in Marks & Printy, 2003). Consistent with this perspective, our data described a complex web of interaction among formal and informal leaders centering on IB program implementation within and across organizational units.

Contextualized research. We have repeatedly noted the need to contextualize research on distributed school leadership in particular settings. The importance of this assertion became readily apparent in this research as we came to see that a key leadership challenge for these schools lies in the complexity of their structural configurations. Teachers and administrators were structurally separated into different building levels (primary, middle, and high), subject departments, grade levels, and IB programs. As one principal expressed, the leadership challenge was to ensure that at the end of the day the whole would be greater than the sum of its parts. That would not have been possible if leadership had been concentrated solely in positions of formal leadership.

Emergent versus planned leadership. Although our account of leadership processes in these schools tends to highlight the *intentionality* of the specified practices, we offer a cautionary note. In reality, as often as not, these strategies were “emergent” rather than planned (Mintzberg & Waters, 1985; Weick, 1976). Notably, the distribution of leadership appeared to allow more staff, working within a common vision and with a common language, to experiment and see *what works*. Thus, although these case schools were selected because of a perception of success, the staff consistently emphasized the point that achieving cross-program, whole-school coherence was an ongoing challenge that required creativity, teamwork, and shared commitment.

Conceptualized instructional leadership. Finally, from the perspective of research, we wish to highlight the extent to which one’s conceptual framework shapes the findings of a study. As we are scholars who have more typically focused on studying the instructional leadership of principals, the use of this distributed perspective on instructional leadership opened our eyes to both data and perspectives that we would not have otherwise seen. Moreover, we wish to suggest that the findings from this study offer insight into how the distribution of instructional leadership practices has the potential to resolve a long-standing dilemma in our field.

Over a period of more than 50 years, important scholars (e.g., Bridges, 1967; Cuban, 1988) and practitioners (e.g., Barth, 1990; Marshall, 2003) have highlighted the gap between normative prescriptions of how principals *should act* as instructional leaders and empirical descriptions of how they *do act* as instructional leaders. Cuban (1988) asserted that there is a DNA deeply embedded in the principalship that inexorably draws principals away from a focus on teaching and learning. Marshall (2003), a former school principal, described, “a ‘force field’ that sometimes kept me out of classrooms” (p. 710) and deflected a focus on instructional leadership. Although he referred to it in other terms, Barth (1990) was actually one of the early proponents of distributed instructional leadership, offering a personally grounded rationale for how and why this perspective could resolve this ongoing dilemma.

Conclusion

We wish to suggest that our own findings offer further empirical description and insight into this issue. At the same time, the current study did not seek to parse out the specific role of formal leaders such as the school heads or the principals within this web of instructional leadership. Nor did the study explicitly examine how the formal leaders sought to foster instructional leadership among others. We suggest that these represent useful topics for future research.

Appendix A

A Scheme of Interview Data Collection

School	Principal or Head Director	VP, Deputy Head	PYP Coordinators	MYP Coordinators	DP Coordinators	PYP Teachers	MYP Teachers	DP Teachers	MYP Students	DP Students
School 1		1		1	1	4	5	5	4	7
School 2	1	3	1	1	1	1	2	1		5
School 3	1	2	1	1	1		3	3		
School 4	1	3	1	1	1	1	4	4		4
School 5	1	4	1	1	1	3	1	1		5

Note. VP = vice principal; PYP = Primary Years Program; MYP = Middle Years Program; DP = Diploma Program. The differently shaded cells indicate different types of interviews (i.e., individual or group interviews). The numbers in each cell indicate the number of people interviewed. The vice principal of School 1 is the same person as the MYP coordinator of School 1.

	Focus group interview
	Individual interview
	Focus group and individual interviews
	Not interviewed

Appendix B

Major Themes and Definitions

Theme	Definition
Articulation	<ul style="list-style-type: none"> Leadership practice such as backward mapping, documentation, and conceptual approach for curriculum articulation
Consistency and coherence	<ul style="list-style-type: none"> Consistency as alignment between the messages within individual IB programs (PYP, MYP, and DP), and their openness to interpretation by those involved (or not involved) Coherence as to whether different programs are explicitly linked to one another Consistency and coherence identified throughout the three programs in terms of curriculum, learning and teaching, common language, etc.
Consistent assessment	<ul style="list-style-type: none"> Consistent or similar assessment used in both the MYP and the DP
Cross-program interaction (students)	<ul style="list-style-type: none"> Students' interactions (both formal and informal) across programs that contribute to the transition

(continued)

Appendix B (continued)

Theme	Definition
Cross-program interaction (staff)	<ul style="list-style-type: none"> • Sharing information about subjects, students, curriculum, and programs through staff's informal interactions (e.g., lunch together or informal chat in a shared staff room) as well as formal meetings (e.g., workshops and regular staff meetings)
Cross-program involvement (staff)	<ul style="list-style-type: none"> • More durable and more planned cross-program interaction than cross-program interaction described above • Three types of cross-program involvement: (a) cross-program teaching (teachers teach more than one program such as both the MYP and the DP) and (b) cross-program cooperation (some teachers get involved in other programs as a mentor or project supervisor)
Difference in assessment	<ul style="list-style-type: none"> • Program differences in assessment perceived by students and/or staff
Difference in learning and teaching	<ul style="list-style-type: none"> • Program differences in learning and teaching perceived by students and/or staff
IB assessments	<ul style="list-style-type: none"> • Outside factors influencing program differences (e.g., university requirements and external IB diploma exam)
Interpretation of IB	<ul style="list-style-type: none"> • Different or same interpretations of IB program by stakeholders
Leadership strategies and practices	<ul style="list-style-type: none"> • Leadership practices and strategies employed for program transition that are classified into articulation, cross-program activities, and staffing
Local contexts	<ul style="list-style-type: none"> • Influence of local contexts (including culture deeply embedded in society) on IB programs in general and the transition in particular
Parent education	<ul style="list-style-type: none"> • Importance and need of parent education and meetings related to IB programs
School size	<ul style="list-style-type: none"> • Small size as a factor related to program implementation in general and particularly pastoral transition and cross-program interactions among school members
Staffing	<ul style="list-style-type: none"> • Staffing practices including hiring and allocating staff that are associated with curriculum implementation and program transition
Pastoral support	<ul style="list-style-type: none"> • Pastoral support for students that are planned and implemented
Support for students	<ul style="list-style-type: none"> • A variety of support for students offered by schools and teachers
Within-program collaboration	<ul style="list-style-type: none"> • Staff collaboration within a particular program

Note. PYP = Primary Years Program; MYP = Middle Years Program; DP = Diploma Program.

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Notes

1. Worldwide portability has traditionally referred to the need for children of expatriate workers to receive an education that is accepted for admission to universities in their home nations. More recently, portability of secondary education has become increasingly relevant for parents in developing countries who wish to ensure that their children are prepared to enter universities in foreign countries.
2. Gronn (2002) also views coordination as a key property of distributed leadership.
3. Notably, the number of the case studies (i.e., the unit of case is each school) is regarded as sufficient for multisite sample cases since our findings from the subsequent case studies "provide compelling support for the initial set of propositions" (Yin, 1994, p. 46) that emerged from the survey analysis and the initial case study.
4. Consistent with the purpose of the study, the results of the survey data are not included in this article.
5. See Appendix B for the meanings of coherence and consistency in this study.
6. The IB learner profile is "the IB mission statement translated into a set of learning outcomes" (IB, 2006, p. 1). In many of the case schools, like backward mapping, the IB learner profile was another tool for IB program implementation and school development in general.
7. Different IB schools use various terms for describing school leaders' positions. For example, in School 5 "director" refers to the principal or head of other IB schools.
8. Cross-program activities among staff occurred especially when schools (e.g., School 2) were implementing curriculum articulation through backward mapping.

In this regard, cross-program activities among staff can be viewed as an organizational tool for articulation. At the same time, however, it should be noted that all five schools viewed cross-program activities among staff as a “broader” strategy beyond for articulation.

9. We also identified many cases of “informal” interactions among staff in association with program transition. For example, teachers and coordinators from different programs tended to have a chance to understand others’ work and programs serendipitously through informal interactions such as lunch together and informal chats in a shared staff room. Although this kind of information interaction was an organizational channel for instructional improvement by understanding what other teachers do, it was not a consequence of planned leadership strategies but a naturally occurring interaction. In this regard, this type of naturally occurring interaction is somewhat similar to the concept of “spontaneous collaboration” (Gronn, 2002), although it does not necessarily aim at accomplishing a certain task together.
10. In addition to this instructional purpose of cross-program teaching, another collateral reason was a time-tabling or workload issue. Although cross-program teaching was mostly regarded as a kind of norm shared by most teachers and administrators, it was also related to a practical time-tabling or workload issue.
11. The official IB website describes the theory of knowledge (TOK) as an integral educational philosophy embedded in the DP. It addresses different areas of knowledge such as mathematics, history, science, and so on. In studying knowledge of these areas, the TOK highlights the process of discovering knowledge and reflecting students’ perspectives on knowledge issues by asking its question: “How do we know?” Through the TOK, IB aims to encourage students to be critical thinkers with the complexity of knowledge (IB, 2011).
12. In the case of School 2, for example, the hiring committee utilizes interview questions about components of IB such as the learner profile not only to make sure newcomers are academically well prepared to teach contents but also to assess whether their thoughts are basically aligned with IB perspectives.

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