

Examining the architecture of leadership coaching

Considering developmental affordances from multifarious structuring

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Abstract

Purpose – The purpose of this paper is to identify the coaching structures that aspiring principals associate with developmentally consequential coaching interactions; identify structural features/functions/attributes that shape a structure's developmental utility and use; and consider how a multifarious coaching structure might advantage the learning experiences of aspiring principals.

Design/methodology/approach – This qualitative study included multiple interviews with two cohorts of aspiring principals ($n = 20$) from one preparation program and with their leadership coaches ($n = 5$) and was framed using the theories of social capital and networks, situated learning, and distributed cognition.

Findings – The authors identified eight coaching structures that aspirants identified as consequential to their learning and development. The authors identified four structural features/functions/attributes that shape a structure's developmental utility. The authors identified three factors that contribute to the developmental utility of this multifarious coaching model.

Research limitations/implications – This study includes a relatively small participant sample –70 percent of the aspiring principals from two cohorts within one preparation program. Data do not include direct observations of coaching interactions within the context of individual coaching structures.

Practical implications – The findings suggest that the structuring of leadership coaching is a critical consideration for those designing leadership coaching programs. This multifarious structuring of leadership coaching created three developmental affordances.

Originality/value – This paper generates new knowledge for the field of principal preparation related to the structuring of leadership coaching and ways in which structuring can shape aspirant learning experiences. These findings are likely to also be instructive to those interested in coaching more generally.

Keywords Principals, Leadership development, Situated learning, Social networks, Leadership coaching, Principal preparation

Paper type Research paper

Introduction

Over the last decade, attention has been directed at strengthening the principal preparation. Not surprisingly, a more intensive and quality clinical experience is regarded as a central component of enhanced program designs (Anderson and Reynolds, 2015; Darling-Hammond *et al.*, 2007; Orr, 2011), and as of 2011, has been elaborated in the Educational Leadership Program Standards (National Policy Board for Educational Administration, 2011). These standards suggest that field-based support is essential to quality clinical experience.

Mentor principals have generally provided primary clinical support despite research suggesting high-quality principal mentoring lacks consistent availability and pointing to

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the issues that regularly undermine its developmental utility. Mentor principals, who are the leaders of schools hosting clinical experiences, may not be dedicated to developmental responsibilities and may view mentees as cheap labor rather than someone to prepare (Williams *et al.*, 2004). Mentors can face time and job demands that may undermine role enactment (Bush and Chew, 1999; Clayton *et al.*, 2013). Some mentors have been found to promote development that is too context specific (Bush and Chew, 1999; Geismar *et al.*, 2014). These issues offer explanations for why coaching is also provided as a support in several US preparation programs (Cosner, 2012; Darling-Hammond *et al.*, 2007; Fusarelli and Militello, 2012; Huang *et al.*, 2012) through: hiring individuals, such as retired principals, and/or shifting and expanding the more traditional field supervisor role staffed by university faculty members to provide less intensive and limited-scope oversight of the field experience.

A small but growing body of literature has taken up the study of leadership coaching and provided insights regarding its developmental utility. Studies have examined coaching independently and in tandem with other supports and is associated with higher levels of leader self-confidence, the enactment of new leadership practices, and higher levels of principal instructional leadership (Bickman *et al.*, 2012; Cardno and Youngs, 2013; Forde *et al.*, 2013; Goff *et al.*, 2014). As Michelle Young, interviewed by Mitgang concludes, coaching “increases the level of personal touch” beyond what is provided through typical field supervision (Mitgang, 2012, p. 14).

However, the existing literature on leadership coaching has several notable limitations that make it less instructive for preparation programs and others seeking to design coaching models. First, many descriptions of leadership coaching provide overly opaque accountings of coaching models (e.g. Celoria and Hemphill, 2014; Darling-Hammond *et al.*, 2007). Second, studies that make designs visible have tended to be anchored in monolithic models that provide either: in-person coaching meetings between the leader and coach or mutual engagement coaching activities for the cultivation of particular leadership practices, such as classroom observation (Bickman *et al.*, 2012; Forde *et al.*, 2013; Goff *et al.*, 2014; Silver *et al.*, 2009). Therefore, little is known about a multifarious structuring approach.

To address these knowledge gaps, we engaged in a study of the coaching of aspirants in a preparation program that replaced traditional field supervision with a multifarious coaching model. Drawing upon the theories of social networks, social capital, and situated learning, we sought to answer three research questions:

- RQ1. What coaching structures did aspirants associate with developmentally consequential coaching interactions?
- RQ2. What structural features/functions/attributes shape a structure’s developmental utility and use?
- RQ3. How might this structuring advantage aspirants’ coaching-related learning experiences?

To conceptually frame this study, we anchor our work in the literature on social networks, social capital, and situated learning. Following that, we present our research methods. Next, we turn to the presentations of findings. Finally, we conclude with a brief discussion.

Conceptual framing

Our conceptual framing begins by drawing upon social network and social capital theory as we examine the structuring of coaching and its impact on aspirant learning interactions and experiences. Sociologists, like Lin (2001), use the term social network to describe social structures that bring together and permit interactions between two or more individuals.

Relatedly, the social capital theory draws attention to “resources that exist in social relations” (Daly *et al.*, 2010, p. 364). Thus, our use of social network and capital theory is done because of the attention that we direct to the social structuring of coaching and to the examination of resources likely to be accessible during coaching through multifarious structuring.

Although social networks arise organically, they can be promoted by design. Designed interaction structures, like the design of coaching structures, introduce social proximity between individuals that may not otherwise exist and create a space for interactions to occur (Coburn *et al.*, 2010). Prior research points to grade or department teams and instructional coaching structures as examples of designed social structures that can give rise to learning-focused social networks (e.g. Coburn *et al.*, 2010; Coburn and Russell, 2008; Daly *et al.*, 2010).

The literature on social capital and networks has been drawn upon in educational research for examining the impact of social structuring on adult learning. Such studies examine the learning resources that exist within various social structures which are thus accessible to individuals within the social structuring along with the structuring shapes that are accessible to a learner for the sharing of expertise, attitudes, and other learning resources (Lin, 2001; Penuel *et al.*, 2012). Structuring can shape interaction configuration and patterns (Coburn *et al.*, 2013); the frequency, nature, and quality of learning interactions; and the resources made available during learning interactions (Coburn and Russell, 2008). Studies also suggest that multiple social structures and their coordination are likely to have affordances to learners and learning. This is partly due to the vulnerability of any single structural arrangement to disrupting factors that might be present (Atteberry and Bryk, 2010), and to the potential for a broader assortment of learning objectives and processes to be supported (Borgatti and Ofem, 2010; Daly, 2010). Therefore, we pay attention to coach structuring, because it likely shapes who is embedded within, and consequently, accessible as learning resources in coaching-related learning experiences. The examining of this multifarious structuring allows us to consider and identify any affordance to learners that might be structurally generated.

We also draw upon situated learning theory, because it points to the importance of the learning context or location, and thus, suggests that a coaching setting may distinguish unique coaching structures and may make important resources available during coaching-related learning experiences. Situated learning (Lave, 1988; Lave and Wenger, 1991) emphasizes the situated and social nature of learning and brings attention to the environmental and social contexts of the learner as factors that shape learning and development. Elaborating situated learning, Putnam and Borko (2000) suggest: “the physical and social contexts in which an activity takes place are an integral part of the activity, and [...] the activity is an integral part of the learning that takes place” (p. 4). Thus, a learning environment can make situational resources accessible including a range of material, cultural, or social resources that can enable or enhance learning (Spillane *et al.*, 2001).

Methods

Study setting

The study setting is a preparation program with features that research has associated with exemplary preparation (Darling-Hammond *et al.*, 2007; Orr, 2011; Orr and Orphanos, 2011). This program is one of five programs in the USA that has been recognized as an exemplary leadership preparation program by the University Council for Educational Administration (Cosner, 2015). It includes a year-long, full-time, and fully paid field experience supported by mentor principals and coaches. The shift to leadership coaching from clinical supervision occurred through the hiring of three full-time coaches, who were former principals, and the funding of two clinical faculty positions, also former principals, whose roles include coaching[1].

Each aspirant is assigned a designated coach, with whom he/she meets roughly one to two hours per week through several dyadic structures, that bring together in different settings or through different mediums a coach and an aspirant, and several structures involving trios or larger groups.

Sample

All 29 aspirants from two cohorts were invited to participate in this study, and roughly 70 percent ($n = 20$) participated. Cohorts typically include a larger and roughly balanced percentage of African-American and white students and smaller percentages of students with other ethnic backgrounds. Aspirants generally have between four and ten years of teaching experience and some teacher leadership experience. All 20 participants identified coaching as contributing to their development; nearly all identified coaching as a major developmental contributor. In all, 100 percent of these students were hired as principals or assistant principals upon preparation completion. All five coaches assigned to these aspirants were invited into and participated in this study. All coaches had served in these roles for at least five years.

Data sources

Aspirant interviews. Two in-depth, structured interviews of roughly two hours each were conducted with 18 of the 20 study participants during their field experience. Due to participant time constraints, second interviews were not conducted with two of the 20 aspirants. Interviews were conducted by graduate students or members of the research team not in faculty roles. Interviews were audiotaped, transcribed, and scrubbed of any hidden identifiers. The aspirants, which appear by identification number in the findings, were asked to describe the aspects of their development, elaborate key developmental experiences and interactions, and identify developmental contribution of various program elements including coaching. The aspirants were also asked about the dosage and structuring of coaching.

Coach interviews. To achieve data saturation for investigated topics, either two or three in-depth interviews were also conducted and transcribed for each of the five coaches ($n = 13$). Interview questions were used to gain more granular accountings of coaching interactions, dosages, and structuring including key features and functions of structures. Although coaching interviews provided insights about the interactions with individual aspirants, their accountings were largely generalized.

Data analysis

Data were stored and analyzed using Dedoose, a computer software package. To address *RQ1*, two two-person teams coded half of the aspirant interviews. We coded coaching interactions that aspirants identified as developmentally consequential, and when made apparent by accounting, also coded excerpts for coaching structure. We generated co-occurrence reports that extracted text coded for both consequential coaching interaction and structures. From these reports, we identified eight structures associated with consequential coaching interactions.

To address the remaining research questions, we completed a similar coding and co-occurrence reporting process for coach interviews and moved co-occurring material from aspirant and coach interviews into separate spreadsheets by structure. Using our conceptual framing to deductively examine aspirant and coach structural spreadsheets, we identified three structural features that shaped each structure's developmental utility or use: individuals embedded within and elemental to the structure, settings elemental to the structure, and learning topics that received attention and the kinds of learning processes

(e.g. feedback, advice, inquiry) attributed to each structure. Elsewhere we offer findings and a framework for considering learning resources enabled through leadership coaching (Author, under review). This allowed us to classify each structure's function as: versatile, as evidenced by the variety of learning topics and/or uses attributed to the structure, specialized, as evidenced by more targeted learning topics and/or uses or by topics and uses largely unique to a structure, and versatile and specialized when both were evidenced. We also identified any key structural attributes that shaped a structure's utility or use. Lastly, we developed a matrix that allowed us to consider and identify three developmental affordances evidenced by the combination of structures generated through this multifarious coaching approach.

Limitations

This study includes a relatively small sample of 20 aspirants and five coaches from a single preparation program. Data do not include observations of coaching interactions within structures.

Findings

The following section presents findings to our research questions. We address *RQ1* and *RQ2* by describing eight coaching structures identified as developmentally consequential and explicating the structural features/functions/attributes that shaped each structure's developmental utility or use. Next, we address *RQ3*, by discussing three developmental affordances generated through the combination of structures associated with this multifarious coaching model. Table I summarizes the findings for these three research questions.

Developmentally consequential structures: features, functions, and attributes

Face-to-face interactions. Face-to-face meetings with the designated coaches were reported by all of the aspirants and coaches as a primary structure and aspirants consistently reported it as a high-value structure. Most aspirants reported encountering this structuring in pre-scheduled time segments of 45 minutes to two hours every week or two. Although these meetings generally took place at the aspirant's school, they occasionally were held off-site.

This structure proved to function with high versatility given the wide assortment of reported learning topics and uses. The structure addressed a range of topical learning needs with an emphasis on leadership competencies specified for development. Thus, topical areas of attention varied between aspirants. Coaches regularly utilized this structure to help aspirants identify, plan for, remain focused on, and monitor progress of field work consequential to development. One aspirant's (No. 16) description of such a coaching interaction is illustrative: "[...] [my coach] pushes me to think about which [clinical work experiences] are going to be the biggest edges of growth and helps me to think about how to do the work that I am going to do well." The aspirants regularly reported using this structure to make aspects of their practice "public" or visible to their coach through oral accountings of practice or the sharing of practice-based artifacts. This enabled coaches to engage aspirants in inquiry routines to prompt critical reflection or planning as well as to provide practice feedback, support, advice, and resources.

Several attributes of this structure encouraged specialized learning uses including its pre-scheduled nature, private context, and longer time allocations. For example, several aspirants reported that advanced planning for these sessions, enabled in part through pre-scheduling, was important to the structure's developmental utility. One aspirant's (No. 20) discussion about this structure is revealing: "If I provide a meeting agenda for my meetings then they're very productive; and if I keep revolving it back to [...] whatever

Finding No. 1 Developmentally consequential coaching structures	Finding No. 2 Features/functions/attributes of structures that shaped or enhanced a structure's developmental utility or use	Feature	Function/use	Additional attributes of structure that shape structure's utility or uses
Face-to-face interactions	People embedded within structure who could enable, shape and/or contribute to learning experiences	Within-school settings engaged by structure that could enable, shape and/or contribute to learning experiences	Highly versatile (many learning topics/learning processes) Specialized (targeted and/or unique topics/learning processes) Highly versatile and specialized Highly versatile and specialized uses	Pre-scheduled, often planned, longer allocations of time
None-face-to-face interactions	Designated coach	Not reported	Highly versatile for learning processes and topics with emphasis on topics aligned with competencies specified for development Specialized for learning needs that warrant in-depth conversations	Ability of both parties to initiate/access structure spontaneously, in high volume, and/or well beyond the typical work day
Mutual engagement in practice	Designated coach Teacher(s) and students in observed classrooms	Classrooms and classroom-based resources within clinical setting (classroom environment, instructional materials)	Specialized for learning needs associated with instructional leadership practices (classroom observation, teacher feedback/coaching); making aspirant instructional leadership practice public, making models of instructional leadership practice available, and drawing on these as learning resources during coaching	None reported

(continued)

Table I.
Findings for RQ1-RQ3

Table I.

Observation of aspirants	Designated coach Teacher leaders, teachers, and mentor principal in clinical setting	Various meeting/team meeting settings within clinical setting (e.g. professional development, teacher team meetings); related resources (e.g. meeting agendas and materials)	Specialized for learning needs associated with several targeted leadership practices; making aspirant practices and situational contexts surrounding practices public and drawing on these as learning resources during coaching	Pre-scheduled
Interactions with non-designated coach	Non-designated coach	None reported	Specialized for learning topics aligned with non-designated coach's unique leadership experience or expertise	None reported
Triad interactions with mentor and coach	Designated coach Mentor principal	None reported	Highly versatile and specialized uses on topics aligned with competencies specified for development	Pre-scheduled and often planned
Interactions with a coach and other cohort aspirants	Designated coach Non-designated coach One or more cohort members	None reported	Specialized for relationship-building with mentor principal and learning needs that benefit from mentor interactions	Formal aspect pre-scheduled and often planned
School site with full cohort and coaching team	Designated coach Multiple principals and teachers from site-visit schools Multiple none-designated	Multiple school settings beyond clinical setting and school-level information and data; classrooms and classroom-embedded	Highly versatile and specialized uses processes and topics Specialized for making aspirant practice public to non-designated coach and cohort through sharing of artifacts of practice and direct observation and drawing on these as learning resources during coaching; and for enabling joint work with cohort members	Pre-scheduled and often planned, extended timeframe

(continued)

<p>coaches Multiple cohort members</p>	<p>resources including classroom environment and instructional materials</p>	<p>practice available that might not otherwise be accessible and drawing on these as learning resources during coaching</p>
<p>Considering the people embedded in this assortment of coaching structures Expanding the number and types of individuals embedded within coaching: (1) who can be directly accessed as learning resource during coaching, or (2) who enable aspirants' authentic leadership practice experiences to be accessible as learning resources during coaching</p>	<p>Considering the settings engaged and drawn into this assortment of coaching structures Expanding the number and types of in-school settings and setting resources: (1) that can be accessed as learning resources during coaching, or (2) that enable models of practice or aspirants' authentic leadership practice experiences to be accessible as learning resources during coaching</p>	<p>Considering the functions or learning uses that are enabled through this assortment of coaching structures Expanding the range or assortment of learning functions and uses</p>

Finding No. 3. Factors associated with the multifarious structuring of coaching that likely enable, shape, contribute to, and advantage aspirant learning experiences

Table I.

support I need [...] it is productive.” Additionally, several aspirants pointed to the longer allocations of time afforded by this structure as supporting learning needs that warranted more in-depth conversations. One aspirant’s (No. 15) accountings are illustrative: “So these [face-to-face] meetings are good because we get to talk in depth and she[2] can provide me with lots of resources when I am reaching periods or areas of concern.”

Non-face-to-face interactions. Nearly all students reported as developmentally consequential the structuring of coaching through non-face-to-face interactions with their designated coach. We identified three types of non-face-to-face interactions: telephone, e-mail and written, and text messaging. These different approaches were used in largely interchangeable ways based on individual preferences. One coach reported never texting or telephoning one aspirant because “her preference was that she did not look at her cellphone during the school day.” Another coach emphasized e-mail with a particular aspirant: “[Aspirant] is a writer so he likes to wait till later in the day and sit with his email. He had a new baby. When the baby was asleep [...] he would send me an email [...] he’d be reflective [...] and I think those were the best, my best insights, how to work with him.” Several aspirants utilized journal exchanges with their coaches to gain support with challenges.

We noted several important patterns related to this structure’s usage. Although generally used in addition to face-to-face structuring, it was occasionally utilized to replace it. As one aspirant (No. 6) reported: “If we don’t have time to meet face-to-face every week, I’m on the phone with her.” Most students reported this type of structuring on a regular basis but with instances of intensive use. Coaches consistently confirmed these accountings as reported by this coach: “We would text each other, anywhere from none and a dozen times a week depending on what was going on.” Although aspirants often initiated this structuring, coaches also did so as this prior aspirant revealed: “You know she’s always available. She sent me an e-mail this morning saying ‘hey if you want to bounce any ideas off me before tonight’, here are the times when I am available by phone [...]”

This structure proved to function with versatility as evidenced by the wide assortment of associated learning topics and uses. For example, the aspirants often made a facet of their leadership practice public to the coach through oral or written practice accountings. This enabled coaches to engage aspirants with inquiry routines to prompt critical reflection or planning considerations. Coaches also used this structure to provide advice, support, or feedback. One aspirant’s (No. 6) accounting is illustrative:

With [coach] [...] we’re on the phone, “this is what I did and this is what I am thinking” and she’ll say “interesting” [...] “what would you say if I said this?” or “what would be your next leadership move”? These were really good conversations [...] they’re always like prompting my reflection.

Several attributes of this structure encouraged specialized learning uses including the ability for aspirants to initiate or engage this structure spontaneously, with high frequency, and well beyond the normal work day. Aspirants regularly reported using this structure for urgent learning needs such as missteps that benefitted from timely coaching support. This is illustrated from an aspirant’s (No. 13) accounting of an e-mail exchange: “I told [coach] right away about [these missteps] and she really did focus in on the coaching component of it [...] and then provided very targeted, frank, but helpful feedback.” Coaches demonstrated consideration regarding whether and when to engage this structuring for learning needs reported as urgent. As one coach suggested: “Some things were just more helpful for her to wrestle with and talk about at a specific period in time, and so drawing some boundaries around that [structure] felt like a proper thing to do.”

Mutual engagement in practice. Although this structuring was less commonly reported and less frequently utilized, a number of aspirants reported as developmentally

consequential mutual engagement structuring that centered on classroom observation. This structuring occurred within the aspirant's clinical setting. Both teachers and students in the observed classrooms enabled and played an active role in this structuring. Classroom resources, such as the classroom environment and instructional materials, were elemental to this structure. This structuring began with the aspirant and coach jointly observing an individual or several teachers, independently documenting observations, and making independent evaluative judgments about instruction. Interactions between the aspirant and coach followed.

This structure proved to be one of the more specialized in terms of its learning content and uses with its emphasis on instructional leadership practices. Following the observation/documentation/evaluation of teaching, coaches tended to engage aspirants in role-play conversations and/or modeling that provided demonstrations of their documentation and evaluation. One of the aspirants (No. 8) shared the following:

The most effective [structure] was when we would co-observe teachers and then she would kind of have me debrief with her as if she was the teacher, you know, the moves that I would suggest, and then she would just kind of talk me through, like, other things that she had observed or other leadership moves that I could make with that specific teacher.

Observation of aspirant. This structuring was also less commonly reported and utilized with less frequency. Nevertheless, a number of aspirants reported as developmentally consequential coaching structured to allowed the designated coach to observe them leading within the clinical setting.

This structuring, which critically relied on pre-scheduling, served a specialized function by focusing on one or more of the following aspirant's: facilitation of a school-level leadership team or teacher team (e.g. grade/department), facilitation of professional development, coaching of a teacher leader, or post-conferencing with a teacher following classroom observation. Individuals embedded in these meeting – including teachers, teacher leaders, and/or mentor principals – enabled and played an active role in this structure. Material resources germane to the work of these setting – including meeting agendas, assessment, or teaching materials, or professional development materials – were important to the structure. For example, one coach discussed her observation of an aspirant working with a teacher team in which classroom assessments and teacher grade books figured prominently in the practice experience being observed and the subsequent coaching interaction:

They collected samples of assignments and assessments and basically decoded those assessments using a depth of knowledge [rubric] [...] and then with the team of people are working with [...] match up the relationship between [...] what the assessments were [...] what was being assessed, and what appeared in grade books.

Following observations coaches interacted with aspirants for different learning uses (e.g. using inquiry routines or providing feedback, advice, or resources). One aspirant (No. 10), who reported this structuring as developmentally valuable, described the structure and interactions as follows: "She [...] sits in on meetings with me, and [...] critiques what I am doing. She can provide additional resources, and she'll say 'well, did you think about this?'"

Coaches reported that observations also allowed them to make important connections to broader areas for developmental attention than the practice that had been observed. As one coach reported:

I got to actually watch him work and I could really then connect the pieces. "Okay, so that was a good meeting, but where are you going with this? Where is the long term planning [...]" Long range planning is a real big deficit for him in terms of leadership planning. So, "where are you taking this team? What do you want to achieve by the end? What does success look like?"

Interactions with non-designated coach. Although this structuring was reported by fewer aspirants and occurred infrequently, a number of aspirants reported as developmentally consequential coaching with a non-designated coach. Given that the setting of the structure was generally not revealed by aspirants, it is likely that the setting did not influence its utility.

This structuring proved to function in a specialized manner and generally focused on topical areas aligned with the non-designated coach's unique experiences or expertise. One aspirant (No. 6), for example, suggested the following: "Even some of the coaches who aren't my direct coach, I've met with them for different reasons, like [coach] has more of an ELL bilingual background, and so when I was looking for advice on that I've met with her and we've had some good coaching conversations."

Triad interactions with mentor and coach. Although analysis pointed to notable variance across aspirants related to the regularity of its use, many aspirants reported the triad structure as consequential to learning. Triad meetings, typically held at the clinical setting, involved the aspirant, coach, and mentor principal. They were pre-scheduled for roughly one hour four to six times per year.

This structure functioned with high versatility as evidenced by the wide assortment of associated learning topics and uses. Although it addressed a broad range of topical learning needs, it generally emphasized the needs associated with leadership competencies specified for development, which varied by aspirant. We saw evidence of an assortment of learning uses. For example, aspirants made facets of their planning practice public through oral accountings and sharing of planning artifacts, which enabled the coach and mentor to provide feedback, advice, and resources.

This structuring served several specialized functions that involved or related to the mentor principal. First, the triad structuring appeared to be critical near the start of the aspirant's clinical experience to help the aspirant gain access and authority from the mentor for clinical work consequential to development. Coaches consistently reported this as a critical triad function:

Triad meetings, [...] my role in those conversations was to make sure that at least on the front end [aspirant's] interests were being protected and that she had an advocate there in the event that there was some resistance from the principal in terms of giving [aspirant] the latitude to do x, y, or z, or to gain access to information or giving her the political capital to work with a particular group of teachers.

This structure also formalized the aspirant interactions with the mentor, which proved consequential in instance where interactions were not well established. As one coach reported:

The two of them did not spend a lot of informal time together [...] so [mentor principal] had all the intentions of you know reserving religiously an hour a week where the two of them would sit down together and just debrief the week and plan ahead. Rarely did that, you know, happen [...].

This structuring oftentimes helped to strengthen aspirant mentor relationships when they had not naturally or quickly developed. As one of the aspirant's (No. 6) reported:

It was really hard to get her attention. I had to push for it [...] it was very, very frustrating [...] very disheartening. I so badly [...] wanted mentorship. We had a triad between my mentor and my coach and me, and we sat down together and that really opened the door [...] and now I am really comfortable with where it's at. But it took awhile.

The pre-scheduling of this structure, which enabled advanced planning, proved important to the structure's function and use. Planning allowed aspirants to consider the

developmental supports most needed from their mentor and coach and design an agenda that encouraged these supports. One aspirant's (No. 2) report is illustrative:

I would set the agenda in terms of what I wanted to talk about, what I'd been doing, and then I would ask questions and then the mentor principal would give feedback, and then my coach would give feedback, and then I would reflect on the feedback and say "moving forward here's what I want to do."

As deemed necessary by the coach, advanced planning also happened between the coach and aspirant as this coach described:

We [coach and aspirant] would talk a lot about what we would wanted to accomplish in that triad meeting, to get [mentor principal's] feedback on her development, but it was also where we wanted to push mentor principal's thinking on [aspirant's] role. So it was kind of like [...] a little brainstorming [...] so it would have gone down the tubes without focused triad. We would definitely talk about those agendas and where we wanted to take the triad agenda.

Interactions with a coach and other cohort aspirants. A number of aspirants reported this structure, done formally with regularity and informally on occasion, as developmentally consequential. More formally, the entire cohort and coaching team met on periodic scheduled occasions on campus. Sessions were typically six hours in length and oftentimes organized the cohort into smaller groups led by a coach.

This structure functioned in versatile and specialized ways. It addressed a range of topical learning needs and served to support the specialized function of making various cohort members available as learning resources to peers. This occurred when cohort members either made aspects of their leadership practice visible as models to others or provided feedback to aspirants on an aspect of their practice that had been made public. One aspirant (No. 4) suggested such interactions prompted critical reflection:

Those sessions [...] were really powerful because they provided opportunities for us to, like, role play and hear from our other cohort members and, like, how they handled different situations or hear from other coaches [...] sometimes there might be role play with feedback that I'll get that just makes me feel like "Oh I should have handled that differently."

Cohort members also became learning resources to one another through the sharing of common work. As one coach suggested, this structure was utilized for: "Getting people to share the work products they've been doing [...] and much more, to focus on [...] work tasks that people have at their sites that are common, and that people can use [this structure] to talk through together, and work through [...] together."

This structuring occasionally occurred in a less formal manner, oftentimes prompted when similar learning needs existed across several aspirants working with the same designated coach as one aspirant (No. 18) reports: "I was able to meet with my coach and with other members of my cohort that were also coached by that particular coach [...] it was almost like a sense of family to a certain extent [...]"

Full cohort and coaching team at school site. This structuring occurred in elementary and secondary schools beyond aspirants' respective clinical settings through site visits. It involved the entire cohort and coaching team as well as educators from this school setting. It typically involved four components: review of pertinent school-level information and data, interview of and/or interactions with the school's principal, observations of classrooms and teaching, and small-group interactions that connected the aspirant with several cohort members and one or more coaches. This scheduled structuring occurred roughly every three to six weeks in larger blocks of time (e.g. roughly six hours) and for focal points of developmental interest which generally centered on a focal leadership competency aligned to the hosting the principals' expertise. Individuals embedded in these events – which

typically included principals, teacher leaders, teachers, and students – both enabled and played a role in this structuring. Resources from the setting – such as school-level information and data, instructional materials, and classroom environments – were also important to this structuring.

This structure functioned in versatile and specialized ways. By design, it addressed a range of topical learning needs and aspirants regularly reported that this structuring allowed them to gain a deeper understanding of particular leadership competencies and of the entailments of robust practices related to these competencies. This structuring also supported the specialized function of making visible to aspirants models of various practices that might not be visible in their current clinical setting and doing so in a way that could be taken up during coaching interactions. The utility of such models being made available in this structuring was elaborated by one of the aspirants (No. 7) in this way:

Going into each of these schools [...] and seeing how school leaders are navigating this concept of, like, team leadership with in their building has been one of the most valuable learning experiences. So you know we're down at [school] and [...] the principal has an ILT [instructional leadership team], it's a high school [...] so he has these department level leads and then there's grade level leads, [...] if you are only going to have two administrators, then I see [...] how important, especially at a bigger school [...] you have to have these effective teams.

Several attributes of this structure, including the advanced scheduling and longer blocks of time, proved important related to the structure's function and use. Advanced scheduling allowed coaches to collectively consider what to showcase and plan enactment. One coach described the importance of planning: "When the school visits, when they're carefully planned [...] the debrief afterwards [...] and the interviews with the principals [...] when they are carefully planned, now if they aren't carefully planned, then it's not good [...] so residents get a rich, varied experience [...]."

Affordances of multifarious coaching

Expanding configuration of individuals embedded within coaching

Our review of this collection of structures reveals an expanded number of individuals and a diversity of types of individuals embedded within and elemental to six of the coaching structures. We noted two important benefits. In several structures, mentor and other principals, cohort members or non-designated coaches – who were embedded in the coaching structure and have different knowledge resources than the designated coach – were directly engaged as learning resources during coaching interactions through their provisions of practice models, advice, or feedback. In several additional structures – including authentic mutual engagement and observing leaders in action – teachers, students, and teacher leaders present in the structure enabled aspirants to engage in and make public to coaches an authentic practice experience, such as observing instruction or coaching a teacher leader. This made a practice experience available as a learning resource during coaching interactions. Thus, multifarious structuring allowed aspirants to directly access additional knowledge resources of individuals beyond the designated coach. It also allowed certain aspirant practice experiences to be accessible as learning resources during coaching, which enabled coaches to provide such things as advice or practice feedback.

Engaging various within-school settings within coaching

Our review of this assortment of structures reveals several settings as elemental to three of the structures including: classrooms and within-school meetings, such as school-level and teacher-team meetings. We noted two important benefits. First, structuring that occurred through site visits to schools allowed aspirants to gain access to models of robust instructional, organizational, or leadership practices that may not have been visible in their

own clinical settings. These practices could then be taken up as a learning resource during coaching. Second, several other coaching structures allowed enabled aspirants to engage in and make public to coaches an authentic practice experience that was particularly reliant on the presence of situational resources embedded in the setting for practice enactment. These practice experiences and the surrounding situational context could in turn be harnessed as learning resources during coaching interactions in ways that enabled provisions of practice feedback, advice, or other resource supports. In these ways, settings tended to provide the kinds of situational resources that were vital to the enactment of certain practices targeted for development. In turn, these practices could then be taken up as learning resources during coaching.

Enabling versatile/specialized learning; broader assortment of learning uses

Lastly, variability is evidenced across this assortment of structures in the kinds of learning needs, topics, and processes that were typically taken up. Although several structures functioned in versatile ways, every structure served at least one specialized function. For example, the aspirants tended to rely on non-face-to-face coaching for learning needs that were urgent, of high frequency, or well beyond the work day and mutual engagement coaching typically centered on learning needs associated with instructional leadership and the teacher evaluation process. Thus, multifarious structuring supported a broader assortment of learning uses than would likely be enabled by monolithic coaching. Importantly, the utilization of a variety of coaching structures was introduced by one coach as critical to her coaching:

It was the variety of those kinds of interactions [...] just a variety of ways of interacting [...] There's a situation where you get an email that says "I feel so discouraged [...] I'm trying to do this and I'm not being included [by the mentor principal]" [...] so then we're in a triad to kind of help turn that around. And then there's the other piece, where you just really want to watch somebody enact the preparation you've been helping them with and debrief how that goes [...].

Discussion

We examined a multifarious leadership coaching model to identify the coaching structures that the aspirants associated with developmentally consequential coaching interactions and to identify the structural features/functions/attributes that shaped a structure's developmental utility or use. We identified eight structures associated with consequential coaching and four structural elements that shaped a structure's developmental utility or use. As we considered these structures more collectively, we identified three factors with a potential for advantaging aspirants' coaching-related learning experiences within this multifarious coaching model. Taken collectively, these findings lead us to argue that the architecture of leadership coaching, with structuring as a central architectural element, matters to aspirant's learning experiences. We conclude by drawing attention to the several key findings likely to be of high value to the field of principal preparation and development as well as to the broader field of coaching.

First, virtually no prior research on leadership coaching has examined whether and how the social and situated nature of leadership coaching impacts leader learning experiences. Thus, our findings generate new knowledge by revealing the presence and developmental utility of structurally embedded social and situational resources. These findings also reveal several structures that enabled aspirants to engage in authentic leadership practice experiences that could, in turn, be drawn upon during the coaching interaction as learning resources. In this way, our findings make visible the potential for structuring to both provide aspirants with access to structurally embedded social and situational resources and to also generate practice-based resources that can be drawn on as important learning resources during coaching.

Additionally, this multifarious structuring model engaged aspirants with an assortment of other individuals beyond the designated coach who could serve as knowledge resources. As such, this finding extends prior research, which reveals the potential for coaches to create bridges between knowledge resources within different social networks (Penuel *et al.*, 2009), by revealing that important knowledge resources can be embedded within coaching structures. This finding also provides the illustrations of accessing “multiple knowledge pools” (Reagans and McEvily, 2003, p. 242) through coaching, and suggests that mentor and other principals, non-designated leadership coaches, and cohort members are likely to be individuals with knowledge resources of utility to coaching-related aspirant development. Moreover, coaching that embeds mentor principals within the structure is likely to be a critical approach for helping aspirants gain more or better access to and developmental support from mentor principals, an important, but potentially challenging developmental resource for some aspirants to access (Bush and Chew, 1999; Clayton *et al.*, 2013).

Lastly, although prior research suggests that multifarious structuring can overcome vulnerabilities inherent within a particular structure (Atteberry and Bryk, 2010), our research suggests that certain structural features or functions can create unique developmental conditions and affordances. Time allocations for structures, the timing of a structure’s availability, and pre-planning associated with particular structures are examples of structural features that shape a structure’s use and utility. Thus, such structural considerations are likely to be of consequence to those designing coaching programs.

Our findings also suggest several areas for future research. Studies of leadership coaching models that draw upon both interview data and observational data of coaching interactions within particular coaching structures would be of particular value moving forward. In addition, studies that utilized tested instruments (e.g. Vanderbilt Assessment of Leadership in Education or the University Council for Educational Administration’s INSPIRE Leader in Practice Edition) to compare the developmental impact of various coaching models, where coaching dosage is held relatively constant across examined models, would seem to be of particular value to model designers. These findings would also be instructive for those who shape policies or provide funding for field-based developmental supports for principal preparation clinical experience.

Notes

1. University and external funds support coaching.
2. We use he/she interchangeably to protect the identify of individuals.

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