

System leadership for school improvement: A developing concept and set of practices

Clive Dimmock

University of Glasgow

ABSTRACT

System leadership is a developing concept and practice increasingly seen as a tool for school improvement, as policy makers switch from traditional top-down reform to professional models of schools working collaboratively. System leadership is being championed by the Scottish College for Educational Leadership (SCEL), but is still in its infancy in Scottish education. Adopting an international perspective on system leadership, but with reference to the Scottish context, the paper aims first, to clarify the concept and its various connotations, and to focus on the notion of head teachers and other school-level professionals as system leaders. Secondly, it goes on to describe the range of roles that system leaders can play and how these present a degree of choice – and a trajectory - for head teachers in choosing appropriate roles that reflect their expertise, experience, self efficacy, credibility, and interest. Finally, adopting a critical stance towards the concept and practice of system leadership – to date the focus has been more on roles and less on substantive capacity building competences required by system leaders for school improvement - the paper redresses the imbalance.

KEY WORDS: system leadership, school improvement, Scottish education

INTRODUCTION

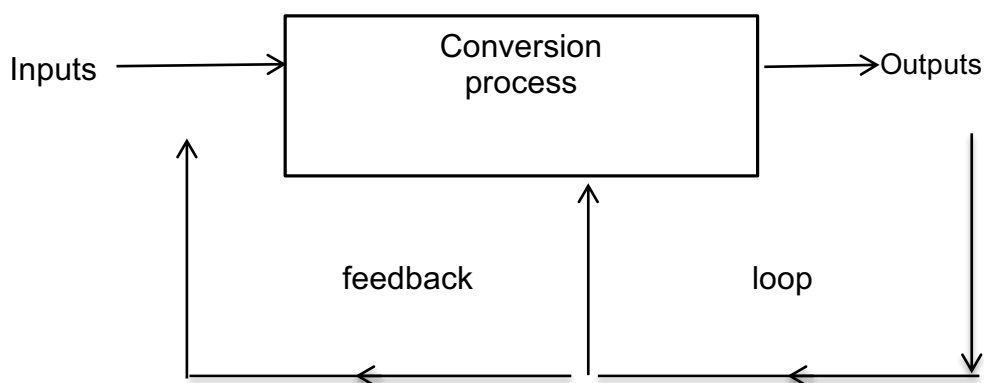
Strong advocacy for system leadership as a strategy for school improvement has emerged over the last decade. However, in the minds of many scholars and practitioners, there is a lingering ambiguity as to what system leadership actually means, what it involves, and indeed, over its potential as a catalyst for school improvement. Moreover, this ambiguity spills over into a doubt in the minds of many practitioners as to whether they possess the skills and credibility to function as system leaders. Accordingly, this paper seeks to clarify the concept of 'system leadership', and argues that more is needed in developing both the concept itself and set of associated practices and outcomes, before the potential of system leadership as a school improvement mechanism is fully realized.

Specifically, the paper has three aims. First, it seeks to clarify the origins of system leadership in terms of its early theoretical base and contemporary education policy trends as a means of understanding its present meanings and applications. Second, the paper describes some of the better-known system leadership concepts and practices currently employed in some systems to engineer school improvement. Finally, adopting a critical stance towards the concept as currently conceived, the paper maps out a fuller conceptualization of system leadership – which the author is using in the fellowship programme for the Scottish College for Educational Leadership (SCEL) - arguing that a more expansive view of the concept and practice of system leadership, will help further develop its potential to generate school improvement. Accordingly, these three aims are reflected in the structure of the paper.

THE RISE OF SYSTEM LEADERSHIP, ITS ORIGINS AND MEANING

The notion that leadership has a system dimension could arguably be said to derive from system theory, which has been the dominant organisational paradigm since the Second World War (see Talcott Parsons, 1951). System theory enriches the meaning of leadership in two ways, both of which are powerful contributors to defining effective leadership. First, is the conceptualization of an organisation as having inputs, which undergo processes, in order to produce outputs (Owens, 2001). In an ideal system, these outputs then enter the external environment and send feedback to the organisation on the quality and relevance of the conversion process in order for the system to evaluate its on-going performance (see Figure 1).

FIGURE 1. A SIMPLE SYSTEM MODEL



System theorists explain the functioning of a business or a school as a system akin to the human body. Certain inputs to a school – such as human (students and teachers), physical and financial resources – are organized, managed and led in ways that enable processes to be undertaken – such as teaching, learning, and assessment, in order to produce outputs, for example, in the case of schools, more educated pupils. Input-output analysis is a by-product of basic system theory. Effective leadership is defined as that which maximizes outputs from resource inputs. Efficient leadership, on the other hand, is viewed as that which yields the

same outputs with minimum of inputs. Effective leadership emphasises outputs, while efficient leadership places the premium on minimizing inputs.

The second major contribution of system theory to leadership is inherent within the input-process-output model, namely, that a system is composed of interrelated and interdependent parts, such that the malfunctioning of one part is bound to affect the other parts. Thus for a system to be healthy and successful, all parts need to be functioning well. Again, this has implications for leaders and managers, in so far as it is their responsibility to ensure all parts of their schools or businesses work effectively and efficiently together. This is normally achieved through organisation-wide sharing of clear goals and objectives, timely communication across the organisation, with feedback and evaluation to each part.

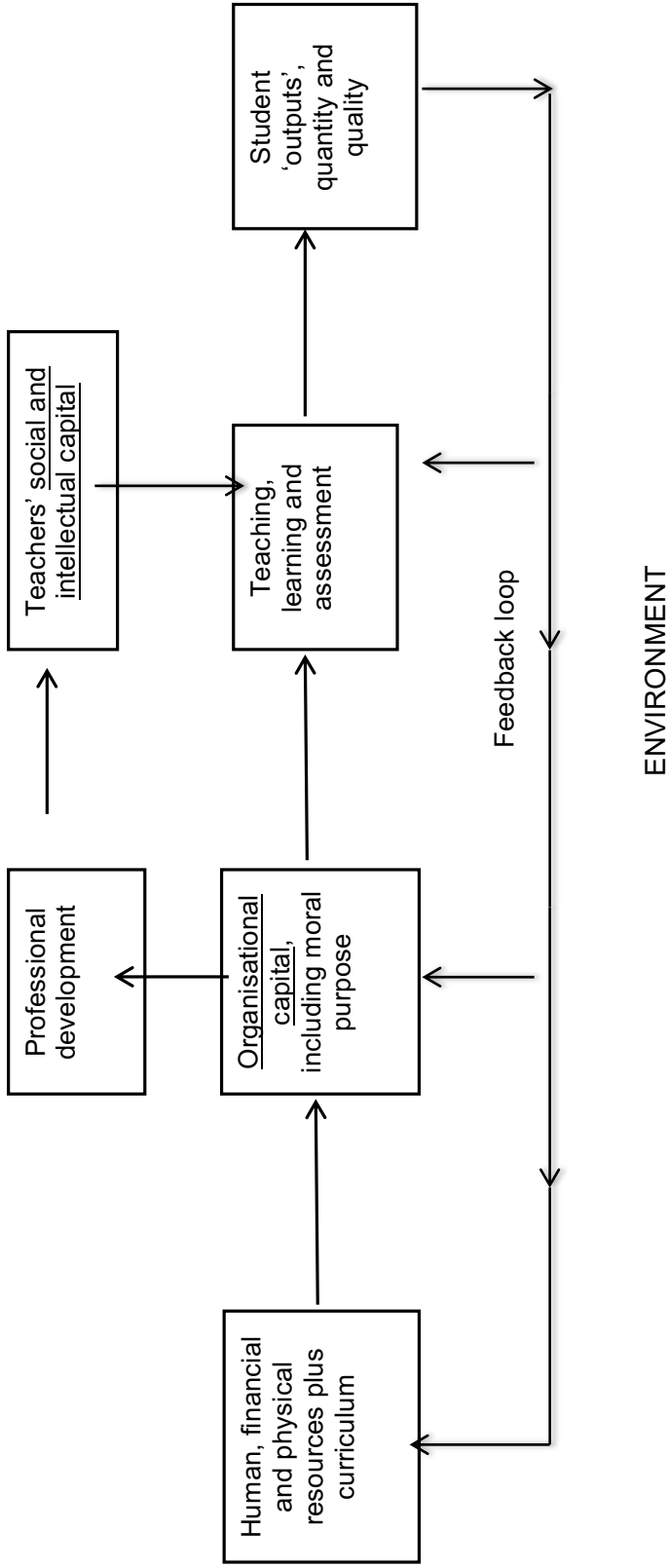
A more detailed example of a school as a system is given in Figure 2 (see Dimmock, 2012). This shows inputs to the school in the form of human, physical and financial resources, and curriculum. These inputs are then filtered, managed and allocated through leadership, management and organisation – which Hargreaves (2003) calls organisational capital - before driving the core of the 'conversion process', namely, teaching, learning and assessment. The quality of this conversion process, however, is (partly) dependent on teachers' intellectual capital (their knowledge and skills as teachers) and social capital (the extent to which they work collaboratively). Upon completion of their studies, students graduate as 'outputs' (with quantitative and qualitative dimensions) and enter the environment (that is, work or further education), at which point feedback signals to the school should indicate the degree to which the school's graduates have been well prepared to meet environmental demands and expectations.

The discussion so far has assumed a school can be thought of as a system, with interconnecting parts and with concerns for effectiveness and efficiency. System theory is applicable at micro-, meso- and macro-levels. In micro-terms a subject department in a school or even a class could be thought of as a system, while at the macro-level, all the schools in a local authority or even a nation could be seen as a system.

The level at which we think about a system is important for understanding system leadership in its contemporary context. If we take the school (meso level) as the system, then the head teacher is a system leader. However, if we consider the local authority or the nation as the system (macro-level), then the head teacher of a school becomes leader of a sub-system, and to be a system leader, s(he) must contribute to the greater good of other schools beyond their own. It is this latter understanding at the macro-level that is akin to the contemporary meaning of system leaders, as elaborated below.

While the first of the two elements crucial in understanding the derivation of and justification for, system leadership derives from system theory dating back half a century or more, the second is more recent, being no more than 10 to 15 years. This second stimulus to conditions leading to the emergence of system leadership

FIGURE 2: LEADERSHIP AS ORGANISATIONAL CAPITAL IN A SYSTEM MODEL OF A SCHOOL (ADAPTED FROM DIMMOCK, C. 2012)



concerns broad policy trends in school improvement and change. A brief history of state school system reform in both the USA and England for most of the post-Second World War period, lasting through the 1970 and 1980s, was mostly government-led, and top-down (Sarason, 1990). Central government initiatives to bring about reform in schools were invariably unsuccessful, since winning the hearts and minds of teachers and principals through a bureaucratic process proved unachievable in all but small and homogeneous systems (Sarason, 1990). As the policy context became more complex, with greater expectations placed on schools, it was necessary to look for more effective ways to trigger school reform (Fullan, 2007). Consequently, in many advanced western systems of education, the 1990s and early 2000s saw the emphasis placed on devolution of more powers and responsibilities to school councils and governing bodies, and the emergence of school-based management and more school autonomy. In order to keep schools in check, the giving of more powers to schools for their decision-making in regard to change and improvement was accompanied by a tightening of their accountability to external and central authorities. However, the emphasis throughout this period was always on vertical relationships between the central regulatory body and schools – in that the devolution of more powers and responsibilities was a shift downwards through the hierarchy to school level, while accountability represented a shift upwards from schools to central bodies.

Fundamentally different relationships however, have been established within systems in the last decade (Chapman, 2012). The period since the early 2000s has not only seen the inclusion of curriculum reform as a priority (as in the case of Curriculum for Excellence in Scotland), but a progression of school based leadership from head-teacher leadership singularly concentrated on reform in one school (their own), to a shared and collaborative approach where leaders improve other schools in addition to their own, often at the same time and as part of the same network. Significantly, this is seen as lateral relationships promoting inter-school partnerships and collaborative networks (Chapman, 2012). While vertical relationships of top-down change were usually between policy makers/administrators and professionals, the lateral relationships of system leadership and school partnerships are essentially between professionals. This switch in school improvement strategy fundamentally and significantly changes the key relationships - from vertical to lateral, and from bureaucrat-professional to professional-professional. This professional-led model has excited scholars such as David Hargreaves (2014) who champions the idea of the 'self-improving school system.' The tacit assumption underpinning the professional model strategy is that professionals – that is, head teachers and teachers – are more likely to be influenced by fellow professionals than they are by policy makers and bureaucrats in willingness to undertake school improvement initiatives (Teh, Hogan and Dimmock, 2013).

An understanding of the theoretical background to system thinking and policy trends in school improvement is helpful to understanding the differences in application of the concept that have since emerged. Some for example, use the term 'system leadership' in reference to the macro level to describe the leadership of a central office or Ministry. Such seems to be the case with the Donaldson Report

on the future of teacher education in Scotland (Donaldson, 2010). A large part of this highly regarded Report focuses on the professional development of teachers, arguing that they should experience an 'extended professionalism' which seamlessly includes leadership training and development. The Donaldson Report frequently refers to career-long continuous professional development, from early entrants to experienced head teachers. In Recommendation 49, the Report states, 'a scheme for national leaders of education should be developed to enable experienced, high-performing head teachers to contribute to system-level leadership of education in Scotland' (p. 101). It goes on to further recommend the setting up of a virtual college – which eventually materialised in a somewhat different guise as the Scottish College for Educational Leadership (SCEL). Thus the Donaldson Report appears to interpret 'system leadership' as a macro-level activity where high-performing head teachers contribute to leadership emanating from the centre, rather than a professional model of leadership based on a school-to-school, head teacher-to-head teacher model. This latter definition of system leadership is championed by Hopkins (2009), and is the model of system leadership on which this paper is based.

In clarifying the development of system leadership, Hopkins recognizes three levels of system leadership, claiming that all three are necessary and need to operate interdependently for whole system transformation (2009, 2012). The three levels are: first, system leadership at the school level – requiring principals to become concerned with the success of other schools as well as their own; second, system leadership at the local/regional level with practicing principals involved in local/regional programmes in order to secure local alignment and implementation; and third, system leadership at the national/state level – with social justice, moral purpose and a commitment to every learner providing the focus for transformation and collaboration system-wide (Hopkins, 2012, p. 171).

A key part of Hopkins's framework is his advocacy of the instrumental role played by practicing principals at all three levels of system leadership. Accustomed to traditional thinking that system leadership is exclusively the preserve of leaders at national (and regional/local) level, such as policy makers, and senior education officers, Hopkins provides an alternative perspective, seeing principals as fulfilling a role in their own right at level 1, but also collaborating with other system leaders at levels 2 and 3. This perspective helps explain a major conclusion of the OECD's (2015) perspective on improving Scotland's schools where they advocate strengthening the role of the 'middle' as reflected in the following passage -

We call for a strengthened 'middle' operating through networks and collaboratives among schools, in and across local authorities. We see leadership best operating not only in the middle but from the middle and indeed see an extended middle as essential to allow CfE (Curriculum for Excellence) to reach its full potential ... there needs to be clarity about the kinds of collaboration that work best to bring innovations and improvements to enhance student learning, and to create coherent and cohesive cultures of system-wide collaboration. This is not an argument for mandated collaboration or contrived collegiality to implement centrally-defined strategies. But it is to argue for greater consistency in collaborative professionalism and higher quality

collaborative practices that have the most positive effects on student learning. (OECD, 2015, p. 17).

According to the OECD, a reinforcement of the 'middle' should be a priority for Scottish education in future. Partly this reflects the present problem of having thirty-two local authorities, with substantial differences in resources, leadership, policies and standards. Consequently, achieving a truly national system with minimal differences in provision and standards is challenging. But the OECD position on 'strengthening the middle' may also reflect a desire to champion the voice of a professionalized school leadership fraternity, especially in the form of head teachers, whose collective influence they wish to make more prominent. To the OECD (2015), 'strengthening the middle' involves head teachers exerting more professional power and influence on policy and practice - individually and collectively (for example, through professional associations and collaborative networks) – alongside teachers' associations, local authorities and universities. Central to this notion is the professionalizing of head teachers, a goal that is already underway and being realized through, *inter alia*, the establishment of SCEL, and especially, but not only, through its Fellowship programme for head teachers.

SCEL is already involved in developing leadership capacity for a professional-led model. This is best accomplished, according to OECD (2015), by developing head teachers and teachers (see the Donaldson Report, 2011), supported by tiers of government, an emphasis on research and evidence-based practice, and evaluation and feedback to all stakeholders through university involvement, and above all, developing the key role of system leadership.

In regard to Hopkins's three levels of system leadership, it is the first – namely head teachers' involvement in school improvement within and between schools – that the following section of the paper elaborates. A focus on this level is justified firstly, because some tangible developments from which lessons can be learned have already been achieved in other systems, some of which are now being introduced into school improvement initiatives in Scotland; secondly, because arguably, it is at this level that the professionalisation of Scottish school leaders, and leaders elsewhere, can best be developed; and thirdly, promoting system leadership between schools is a compelling way to break down the substantial performance differences between schools, or 'segmentation' as Hopkins (2012) refers to it, within school systems. In the foregoing context of school level, 'system leadership' is defined by SCEL (2016, p.1) in the following way:

System leaders lead in their own organisations and are able to share their expertise and work jointly with leaders from other areas of the system in order to drive improvement and successful outcomes. System leaders care about and work for the success of other schools as well as their own. They have a key role in working with senior colleagues; empowering them in their leadership through dialogue, coaching and mentoring and planning, as part of their organisation's performance review processes.

Furthermore, it is worth acknowledging the somewhat different pathways that system leadership has followed in England and Scotland, possibly due to differences in educational policy. Whereas in England policies of greater

competition and marketization between schools might have been the reason why the National College for School Leadership championed the development of system leadership among school head teachers (*i.e.*, to counter excessive competitiveness), in Scotland, market-driven, neo-liberalist policy has to date been far less evident in education. Arguably, this could be why the full range of system leadership roles has yet to emerge in Scotland. However, the significant differences in school performances across and within Scottish local authorities (LAs) have been sufficient to build some inter-school collaboration. Glasgow City for example, trialled a form of headship that could be described as system leadership - primaries and their associated secondary school were set up as learning communities - each school had their own head teacher, but with one head teacher appointed as the Head of the Learning Community. In addition, many LAs have created school clusters (usually one secondary and between three to ten primaries) which generate common development priorities and programmes and work together to achieve these. Although there is no designated 'Head' of the cluster - the way in which head teachers are expected to collaborate for the good of their 'mini system' could be regarded as an exercise of system leadership.

PURPOSES, CONTRIBUTIONS, AND POSSIBILITIES OF SYSTEM LEADERSHIP WITHIN AND BETWEEN SCHOOLS

It is an unfortunate characteristic of many systems that the quality of leadership, as well as the quality of schools, varies greatly. As Dimmock (2012) argues, the proportion of high performance leaders (head teachers) in a system may be less than a third or even a quarter. Yet, improving and transforming schools requires high performance leaders. Hence, given the relative shortage of outstanding leaders, system transformation depends (at least in the short-term) on sharing and distributing the limited supply of excellent leaders and leadership between schools. Indeed, for Hopkins (2012), the importance of overcoming 'segmentation' and achieving greater uniformity of high standards within and between schools is the most compelling argument for system leadership. To this end, he sets out five implications (Hopkins, 2012, p. 170):

- the need to increase the resource of system leaders who are willing and able to shoulder wider system roles
- all failing or under-performing schools should have a leading school to work with them
- schools should take greater responsibility for neighbouring schools in order to build capacity for continuous improvement at local level
- there is need for incentives to foster greater system responsibility including the enhanced funding of at-risk students, their more even distribution between all schools, and incentivizing teachers and leaders to work in such schools
- a rationalization of national, state and local agency functions and roles to allow the higher degree of regional co-ordination for increasingly devolved systems.

These implications emphasise the importance of school-to-school partnerships and collaborations, and the interconnected role that system leaders play in enabling them. System leadership – as the earlier description of system theory mentioned – is also motivated by benefits gained from the interconnection of schools, and the effectiveness and efficiency that can result.

Purposes of system leadership

Some of the key purposes of system leadership – such as overcoming the segmentation of schools, and promoting the professionalisation of head teachers and other school leaders as agents of school improvement, have been recognized earlier in this paper. There are, however, other equally compelling reasons for championing system leadership (Hopkins, 2009). The first is the idea that system leaders are generally ‘high-performing,’ and given that outstanding leaders seem to be in a minority, then it is sensible to spread and disseminate high quality leadership across more schools. Second, system leadership can help overcome the high variability in policy implementation across a system. Third, in the same way, it can help reduce the considerable variation in outcomes both within and between schools. Similarly, fourth, it can help reduce the variability of teaching quality across schools, as well as the inconsistency in quality of professional development provision. Finally, it can offer better prospects of scaling-up innovations within and between schools. In most if not all of these ways, the compelling justification is that system leadership holds considerable potential for achieving greater social justice and equity across a school system. It does so by equalizing the quality and standards of educational provision across a system.

Ultimately, however, the most powerful of all justifications for system leadership is grounded in the notion that high-performing leadership is instrumental in improving the quality of teaching and learning for more students across a school system (Hill, 2011).

Contributions and roles of system leaders

Many head teachers find the idea of becoming a system leader, ambivalent. This is partly due to the fact that roles are still evolving in many systems, including Scotland. In England, the former National College for School Leadership (NCSL), established in 2001, was instrumental in supporting the development of a range of system leadership roles, resulting in head teachers becoming increasingly aware of the expectations, responsibilities and even benefits, of undertaking system leadership.

Many observers are surprised by the range and choice of roles and contributions available in system leadership when referring to the English context (Ballantyne, Jackson and Temperley, 2006). Hopkins (2009) also describes a range of system leadership roles and the potential impact of each. In all, seven roles are identified, with a progression from micro– to macro- levels. First, is the professional partner/head teacher mentor, where a head teacher provides support to another head teacher on a one-to-one basis. This role is relatively risk-free and constitutes a first step for those who may be under-confident and unsure of their ability and credibility to assume system leadership responsibilities. Second, is the local leader of education who, besides leading their own school, takes on a coaching and mentoring role with a head teacher whose school is in challenging circumstances. Here, the aim is to increase the leadership capacity of other schools with the goal of raising standards. Third, is the role of school improvement partner/leader. This involves developing and leading a school improvement partnership (SIP) of several

schools. Partnerships may be founded on the basis of curriculum innovations, or the sharing of common improvement projects, or developing responses to key challenges, such as behavioural problems. SIPs may be formal or informal. Fourth, is the executive head teacher who leads more than one school. There may be a few reasons for this arrangement – from overcoming a shortage of head teachers, as in the case of two or more neighbouring rural primary schools sharing the same head, to the head of a successful school acquiring the headship of a less successful school. Fifth, is the consultant head teacher, who acquires a specialist expertise in a particular area, such as learning-centred leadership, or social justice, or school-family links, and works with schools across the system. Sixth, is the national leader of education (NLE) where head teachers of outstanding schools (as judged, for example, by consistently achieving above expected levels of ‘value-added’ in student performance) and their staff, provide support to other schools, especially those in challenging circumstances. Finally, there are specialist leaders of education, comprising experienced middle level or senior leaders other than heads, interested and able to support teachers and leaders in other schools. An example would be a high-performing mathematics teacher who mentors and coaches other mathematics teachers in schools across the system. System leadership opportunities are not exclusive to head teachers. Indeed, many school systems presently fail to deploy teachers and leaders with excellent or outstanding expertise –whether at teacher-, middle- or senior -level - in any subject or generic area of school management and leadership – across the system to the benefit of more students. System leadership roles will likely develop differently in every school system, tailored to meet particular needs at a given time. And the roles themselves will evolve over time.

POSSIBILITIES AND BENEFITS OF SYSTEM LEADERSHIP FOR INDIVIDUALS AND SYSTEMS

There is undoubted scope for scaling-up system leadership to a far greater level than entertained hitherto. In 2009, about 25 percent of heads in England were fulfilling two or more system leadership roles, and a high 80 to 90 percent expected to still play these roles three years later (Hopkins, 2009). Clearly, the more leaders involved in system leadership, the greater is the possible synergy from scaling up the positive effects of high-performing leadership on raising achievement levels of all students, and the likelihood of creating a self-improving school system (Hargreaves, 2014).

There are strong personal and professional attractions for head teachers to become system leaders. Opportunities are afforded to progress careers, seek new challenges, possibly secure additional funds for their own and others’ schools, and to influence policy; but the most compelling is to improve other schools and their student learning.

There are equally strong benefits of system leadership for the system as a whole. Opportunities to raise the performance of schools system-wide, scaling up of high performance leadership and school improvement projects, deployment of outstanding leadership talent to benefit more schools, creation of a pathway for

leadership career progression to help retain experienced heads, sharing of resources between schools, and sustaining of innovations – are all possible.

A key characteristic of the range of system leadership roles described above is that their perceived complexity tends to increase from micro- to macro- levels. An NCSL survey in 2009-10 (Hopkins, 2009) showed that as the perceived complexity of the role and thus experience required increase, there is a drop in interest among head teachers as potential system leaders. Understandably, key factors in influencing head teachers' decisions as to whether they aspire to system leadership are their experience, their sense of self- efficacy and credibility with other heads (Dimmock, 2012).

A further salient feature of the range of system leadership roles is that they can be seen as offering a progressive pathway or trajectory of challenges, as well as a range of knowledge, skills and experience required. Hence, an early entrant to system leadership might start with mentoring and partnering another head, with time progress to leading a school improvement partnership, and ultimately assume a national leader role, assuming their school has consistently performed above expectations for a number of years (Hill, 2012). The issue of 'spawning' more system leaders is important, and understanding why some may feel reluctant to undertake such roles, whether through perceived lack of experience, concerns it would detract from their own school projects, or perceived sensitivity over relationships with colleagues and peers – are all important concerns for those charged with fostering system leadership.

SYSTEM LEADERSHIP SKILLS AND COMPETENCIES

Conventional thinking has it that the skills required for system leadership are the same as for headship in general, only more extended (Hopkins, 2009). It is also claimed that the skills for many of the roles overlap, such that the skills for being a 'professional partner' are much the same as for being a 'local leader of education' or a 'school improvement partnership' leader. These generic skills include good communication abilities, strategic thinking and ability to identify and implement key priorities for school improvement.

However, little is currently known about these issues. The NCSL survey conducted in 2009-10 shows that respondents perceived a significant difference in the level of confidence of possessing the core skills for various system leadership roles, and a substantial gap between current system leaders and those who aspire to system leadership (Hill, 2012; Hopkins, 2009). Consequently, it is tempting to suggest that the conventional thinking is seriously inadequate in identifying the higher-order skills necessary for high-performing and system leaders.

There is a clear need to think more creatively and critically about the skills and competencies required of system leaders. Essentially, system leadership is closely assimilated to high-performing leadership. This is a tenable position as long as it is accepted that high-performing leadership is itself a developmental trajectory, just as system leadership is, and that in any given situation, system leaders will need to call on some aspects of their high-performance skills. In this sense, system

leadership becomes a sub-set of high-performance leadership. Accordingly, given the role requirements of system leaders, three core capabilities of system leadership seem axiomatic and deserving of particular emphasis:

- problem-solving skills – that is, system leadership as adaptive work
- context-based strategies – the capacity to apply strategies appropriately to suit particular contexts
- tacit-learning skills – the capacity to learn quickly and intuitively from practical wisdom and on-the-job experiences (Dimmock, 2012)

Since the core nature of system leaders' work is close engagement with head teachers and practitioners, the aim being to improve the performances of particular schools, then it is logical to place a premium on problem solving, on abilities to tailor strategies to suit specific conditions and contexts, and on capacity to learn flexibly and quickly from on-the-job experiences, namely tacit learning. Each of these is worth elaborating.

Problem-solving skills

School leadership is crucially about decision making to solve or mitigate messy, swampy problems. Often there are few if any ready-made answers. The hardest choices are not between right and wrong, but between right and right. Leadership is about the ability to mobilize oneself and others to learn skills and qualities to meet adaptive challenges, that is, solutions that require people to change their ways (Hopkins, 2007). It follows that system leadership is the antithesis of offering advice and guidance based on ready-made solutions to existing or anticipated problems in other schools. Rather, it is mostly about collaborating with others to handle adaptive challenges, involving situations that lie outside familiar ways of strategizing, or for which no ready-to-hand solutions are apparent. The easiest problems to solve are normally technical or routine, where existing know-how may be sufficient. Adaptive challenges, however, require deeper understanding of more factors, new ways of thinking and working, and predicting the consequences of chains of events. They invariably involve human resources – rather than technical – solutions, and capacity building.

A premium is thus on ability to work with and through complex problems with other head teachers to generate appropriate implementable strategies. This necessitates a combination of skills, including academic coded knowledge (research evidence), tacit knowledge (practical work experience), conceptual skills, and contextualized application – all of which are cognitively processed through playing out alternative scenarios – to produce an action response.

Context-based strategies

While much leadership knowledge and skills is generic, it is the application of such knowledge and skills to specific contexts that decides their efficacy – 'one size does not fit all' (Dimmock, 2012). Context comprises of two broad categories: the type and characteristics of school (sector, size, purpose/mission, gender); and location and socio-economic factors, such as student intake (ability mix), race/ethnicity, and parental socio-economic background. It is tempting to think that, other things being

equal, system leaders will feel more comfortable and self-efficacious working with other heads and schools that proximate to their own contextual expertise and experience. System administrators in central offices would find it useful to compile and maintain an audit of skills and experiences – including the type of tacit experience accumulated by the stock of head teachers in their schools – for future deployment of leadership expertise that best fits any given context.

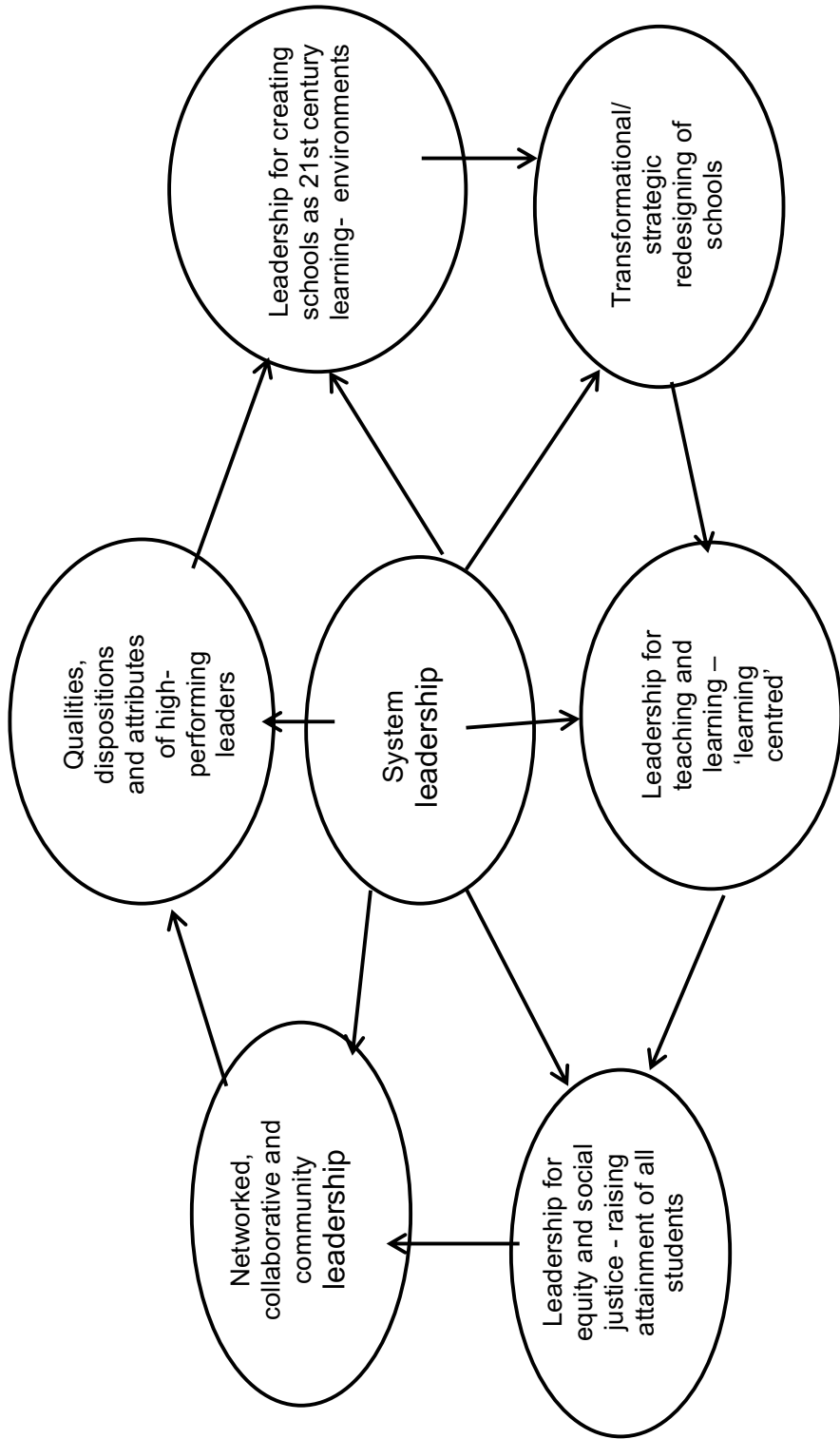
Tacit learning

Relatively little is known in school leadership research about tacit knowledge (Dimmock, 2012). It is generally assumed that head teachers learn far more about leadership through tacit means (namely, their own on-the-job experiences and shared experiences with peers), than through attendance on courses and reading of books. With age, it is normal to assume cognitive dexterity reduces, while the number and range of experiences generally increase (St Germain and Quinn, 2005). Through tacit learning, we learn from both positive situations (how to do things), and negative experiences (how not to do them). An interesting line of research still to be fully explored is identifying those situations and experiences most conducive to tacit learning. Hypothetically, one could argue that models and demonstrations of good leadership would be positive learning experiences, such as serving in a great school with high-performing leaders, working with very able colleagues, being in schools with strong social justice learning cultures, and school environments of purposeful professional development targeting student learning and equity.

A further view is that we learn most from crises and challenges, often related to conflicts between stakeholders, or major resource cuts, or blemishes on school performance or reputation (Dimmock, 2012). But this ability to learn surely depends on the resilience of leaders. It seems true that we most remember and can recall events such as crises, critical incidents, emotional involvements, those that challenge leaders' core values and goals, and when there is a lot at stake. Some early (but limited) research suggests that some leaders are more adept, efficient and effective at learning tacit knowledge than others (Nestor-Baker and Hoy, 2001). Eventually, the answer lies in professionally developing leaders in the skills of tacit learning, so they become effective cognitive processors of practical experiences, able to draw on past memory of what worked and failed, and why, and with ability to adapt strategies to meet current challenges (Dimmock, 2012). Tacit knowledge and how leaders learn leadership is crucial to both improving the quality of system leadership and ultimately, if leadership training can embrace the technicalities of tacit learning, the supply of future system leaders.

So far this paper has argued that both the concept and practice of system leadership has largely focused on the roles played – from mentor/partner, local leader, school improvement partner, to national leader of education- especially in relation to school performance, student learning and equity between schools. It is timely now to move the concept and practice forward beyond an understanding of the roles. The key issue centres on what technical knowledge, skills and competencies are needed by system leaders in order to maximize their efficacy and effectiveness when playing the range of system leadership roles? Surprisingly, this

FIGURE 3. SKILL-SET FOR SYSTEM LEADERS AS AGENTS OF SCHOOL IMPROVEMENT



question remains largely unanswered. Hence the next section addresses this question.

DEVELOPING THE CONCEPT AND PRACTICE OF SYSTEM LEADERSHIP

It is a key argument of this paper that the present exclusive focus on roles and purposes provide an incomplete understanding and a partial picture of the potential of system leadership. There is need to connect the roles and purposes to the substantive knowledge, skills and competencies that are needed in order to fully realize the concept, practice and effectiveness of system leadership. Indeed, this is exactly the rationale for the design of, and curriculum for, SCEL's fellowship programme for Scottish head teachers. This final section thus explores the nature of the content that gives meaning and substance to system leadership roles.

Any curriculum is a selection from a wider range of knowledge. Within curriculum constraints of time and resources, designers must choose priorities for inclusion. This is certainly the case with SCEL's fellowship programme. From a broad array of relevant knowledge and skills needed by system leaders, six were considered to be axiomatic for future system leaders in the Scottish context. These six (shown in Figure 3) are not discrete, but in fact overlap and reinforce each other, as the brief account below shows.

Qualities, dispositions and attributes of high-performing leaders

A suitable starting point is the qualities needed by high-performing system leaders. Clarifying these personal characteristics is not only beneficial for system leaders in respect of their own development, but also for leaders of other schools with whom they work. A key part of system leadership is about building leadership capacity across the system. Research suggests there are important psychological traits that form the basis of outstanding leadership: these include emotional stability, openness to experience, agreeableness, and conscientiousness (Zaccaro, Kemp and Bader 2004). Building on the work of Zaccaro *et. al* (2004), others emphasise the importance of personal qualities such as resilience, self-efficacy and confidence, optimism, and reflection, in high-performance leadership (Dimmock, 2012).

A further aspect is the claimed distinction between basic leadership skills possessed by competent leaders, and higher-order skills that distinguish high-performance leaders. Thus, Dimmock (2012) discusses Cave and Wilkinson's work that attempted to show that high-performance leaders not only have the basic skills (such as professional knowledge and communication skills), but the ability to combine these with higher-order capacities (such as ability to read situations, to make balanced judgments, to utilize intuition in decision making, and to exercise political acumen). It is these higher-order capacities that distinguish them as outstanding leaders, and which we should expect in our system leaders.

LEADERSHIP AND CREATION OF SCHOOLS AS INNOVATIVE 21ST CENTURY LEARNING ENVIRONMENTS

Central to the work of system leaders is the capacity to work with others to successfully transform schools, including their own. A key OECD project has highlighted the importance of reforming schools to become 21st century innovative learning environments, and the crucial role that leadership plays in that process (Dimmock, Kwek and Toh, 2013). Schools must reflect contemporary socio-economic trends in order that students acquire the knowledge, skills and values to become successful citizens, balanced individuals and educated workers in the 21st century global economy. To that end, system leadership needs to reflect the processes and structures that will create schools as appropriate learning environments. Hence the SCEL fellowship programme highlights the following aspects of system leadership:

- transforming schools into professional learning communities
- anchoring teachers and leaders in research-engagement as a basis for professional development and informed professional practice
- fostering teaching practices with high effect sizes on student learning
- promoting teacher care, engagement and motivation
- developing and nurturing leadership within and between schools
- re-designing schools that are fit-for-purpose learning environments
- engineering inclusive school communities driven by social justice principles and practices.

Strategic leadership for transforming and re-designing schools

Transforming schools in the above ways requires high strategic leadership competencies underpinned by an understanding of schools as system organisations. It demands leadership that appreciates the inter-dependencies of the parts – how school vision and goals, curriculum, learning, teaching, supporting structures of timetable, and staff and student grouping, technology, professional development, and leadership itself – all interrelate in ways that if one or more elements are changed, reverberations on other parts are triggered (Dimmock, 2000). It places a premium on planning and intuitively knowing when to introduce which changes, depending on seizing the right moment and staff readiness. Transforming schools is a long-term process, often ten or more years.

The term ‘re-design’ is appropriately used, and challenges the best of leaders. Strategic and medium- to long term planning of school change requires leaders to have a methodology, as Dimmock (2000) suggests in championing backward-mapping.

Learning-centred (instructional) leadership

For more than thirty years, instructional leadership has been at the forefront of leadership research and practice in school effectiveness and improvement. Ultimately, the purpose of system leadership is to improve teaching and learning in all schools to the benefit of all students. If system leaders are to maximize this important role, then they need capacity to adopt an evidence-based approach

grounded in research knowledge of curricula, pedagogy and learning. For example, they need to know - the effect sizes of alternative teaching methods on student learning (see Hattie, 2009); the appropriateness of different teaching strategies for particular learning outcomes and student ability levels; and what constitutes a balanced, well-designed curriculum that includes transversal knowledge and skills as well as academic. In addition, there is the need to care for, and motivate their teachers; to ensure that teachers are provided the resources and support to engage in continuous professional development geared to maximizing student learning, and to promote self-evaluation.

Leadership for equity and social justice

While schools cannot compensate for societal inequalities, differences between schools in terms of their educational performance do contribute to inequality of student attainment. It is possible for leaders to address this school component of inequality. System leadership that drives every school to be a good or great school and where every child has the chance to fulfill their learning potential – should be the aim. Consequently, there is need for system leaders to be well versed in intervention strategies that help address the myriad forms in which inequities occur – through for example, low ability, social and family background, age, gender, race and ethnicity (Liasidou and Antoniou, 2015). A wide range of interventions may need to be adopted, including provision of compensatory support, one-to-one coaching, extra resources, re-allocating the best teachers, tailoring the curriculum, and developing improved school-family collaboration. Above all, leaders shoulder responsibility for creating school cultures that prize equity and social justice and insist teachers are passionately committed to these values.

Networked, collaborative and community leadership

An increasingly important contribution of system leaders concerns the capacity to forge constructive and collaborative relationships between and beyond schools. An example of the former is the school improvement partnership; and of the latter, co-operation between school and social welfare and health departments of local authorities. Although, as Chapman (2012) argues, the evidence base is still emerging, it is increasingly apparent that school improvement efforts are enhanced by co-operation and collaboration between and beyond schools. In regard to between school collaboration, among the potential benefits are – shared staff expertise and other resources, enhancement of professional development opportunities, scaling-up and sustainability of innovations, development of a local cadre of leaders, and strengthening of commitment to improvement goals (Ainscow, 2012; Ainscow and Howes, 2007). In terms of beyond school collaboration, Chapman (2012) espouses the potential benefits of a joined-up approach between schools and other public services which offers greater leverage to tackle the problems posed by the more intractable socio-educational issues. He goes on to claim that school systems that adopt an enlightened joined-up view see school improvement in a broader context of processes and outcomes, and that results in turn in a more coherent approach, which tends to lead to improvement becoming systemic.

CONCLUSIONS

While there are many definitions of system leadership, this paper has concentrated on the one that applies to head teachers and other school-level leaders working with other professionals in schools beyond their own, in order to capacity build to achieve school improvement, to raise achievement levels, and secure more equitable student learning outcomes.

In the decade that this form of system leadership has been emerging, there is growing clarity over the range of roles that system leaders might adopt. Taken together, these roles range from micro- to macro-level, and as such, provide a pathway from less to more responsibility. Hence, prospective and existing system leaders have an array of choices as to which system leadership roles they feel they wish to assume, and thereafter, progress towards. Crucial to convincing head teachers to become system leaders, however, is a strong sense of self efficacy, credibility with peers, and the foresight to see that among the benefits from enlarging their contributions to the wider system are the creation of more improving schools for their students. Good system leadership necessarily involves many of the characteristics of high-performance leadership, including higher-order competencies.

Importantly, the salient argument threading through the paper is that while system leadership roles have been forged and given clarity, and are being implemented in some systems, the concept of system leadership *per se* remains under-developed. Little attention has to date been paid to the substantive leadership knowledge and skills that system leaders need in order maximize their impact. In addition, the higher-order skills needed by system leaders have received little consideration. These require significantly greater recognition if the concept and practice of system leadership are to be developed to their potential. Effective system leadership demands capacities to work with other leaders and teachers to problem solve, develop solutions to complex issues, and tailor strategies to specific contextual conditions. Above all, system leaders need commanding knowledge and skills in the substantive leadership areas relevant for transforming 21st century schools, including creation of innovative learning environments, transformational and instructional leadership, and leadership that raises achievement levels while at the same time achieving greater equity. This is a demanding agenda – it will require nothing less than the professionalisation of school leaders and school leadership, and the close collaboration of all stakeholders – practitioners, academics, professional developers and policy makers.

REFERENCES

- Ainscow, M. (2012) Moving Knowledge Around: Strategies for Fostering Equity within Educational Systems. *Journal of Educational Change*, 13(3), 289-310.
- Ainscow, M., & Howes, A. (2007) Working Together to Improve Urban Secondary Schools: A Study of Practice in One City. *School Leadership and Management*, 27(3), 285–300.
- Ballantyne, P., Jackson, D. & Temperley, J. (2006) What Does a System Leader Do? Online at: <http://www.rtuni.org/uploads/docs/what-does-a-system-leader-do.pdf>

- Chapman, C. (2012) School Improvement Research and Practice: A Case of Back to the Future. In C. Chapman, P. Armstrong, A. Harris, D. Muijs, D. Reynolds, & P. Sammons (Eds.) *School Effectiveness and Improvement Research, Policy and Practice*. Abingdon, Oxon: Routledge.
- Dimmock, C. (2000) *Designing the Learning-Centred School: A Cross-Cultural Perspective*. London: The Falmer Press.
- Dimmock, C. (2012) *Leadership, Capacity Building and School Improvement: Concepts, Themes and Impact*. London: Routledge.
- Dimmock, C., Kwek, D., & Toh, Y. (2013) *Creating 21st Century Learning Environments in a High-Performing System: Leadership and School Design in Singapore*. OECD. *Innovative Learning Environments* (chapter 5, pp.103-134). Paris/OECD.
- Donaldson Report (2010) *Teaching Scotland's Future. Report of a Review of Teacher Education in Scotland*, Online at: www.gov.scot/resource/doc/337626/0110852.pdf
- Fullan, M. (2007) *The New Meaning of Educational Change*. (4th Edition) New York: Teachers College Press.
- Hargreaves, D. H. (2003) *From Improvement to Transformation*. Lecture presented at the International Congress for School Effectiveness and Improvement, Sydney, Australia. Online at: <http://www.icsei.net/index.php?id=662>
- Hargreaves, D. H. (2014) *David H Hargreaves' thinkpieces on the Self-Improving School System*, National College for Teaching and Leadership. Online at: <https://www.gov.uk/government/collections/david-h-hargreaves-thinkpieces-on-the-self-improving-school-system>
- Hattie, J. (2009) *Visible Learning: A Synthesis of Over 800 Meta Analyses Relating to Learning*. Abingdon: Routledge.
- Hill, R. (2010) *The Importance of Teaching and the Role of System Leadership*. National College for School Leadership. Nottingham: NCSL. Online at: <http://dera.ioe.ac.uk/10431/1/download%3Fid%3D153443%26filename%3Dsystem-leadership-illuminas-research.pdf>
- Hopkins, D. (2007) *Every School a Great School: Realizing the Potential of System Leadership*. Buckingham: Open University Press.
- Hopkins, D. (2009) *The Emergence of System Leadership*. National College for School Leadership. Nottingham: NCSL. Online at: <http://www.learnersfirst.net/private/wp-content/uploads/Resource-The-Emergence-of-System-Leadership-Hopkins-2009.pdf>
- Hopkins, D. (2012) What We have Learned from School Improvement about taking Educational Reform to Scale. In C. Chapman, P. Armstrong, A. Harris, D. Muijs, D. Reynolds, & P. Sammons (eds.) *School Effectiveness and Improvement Research, Policy and Practice* (pp.163-176) Abingdon, Oxon: Routledge.
- Liasidou, A., & Antoniou, A. (2015) Head Teachers' Leadership for Social Justice and Inclusion. *School Leadership and Management*, 35(4), 347-364.
- Nestor-Baker, N.S., & Hoy, W.K. (2001) Tacit Knowledge of School Superintendents: Its Nature, Meaning and Content. *Educational Administration Quarterly*, 37(1), 86-129.
- OECD (2015) *Improving Schools in Scotland: An OECD Perspective*, Paris: OECD.
- Owens, R, G. (2001) *Organizational Behavior in Education*. (7th Edition) Needham Heights, MA: Allyn and Bacon.
- Parsons, T. (1951) *The Social System*. New York: The Free Press.
- St Germain, L. & Quinn, D.M. (2005) Investigation of Tacit Knowledge in Principal Leadership. *The Education Forum*, 70 (Fall), 75-90.
- Sarason, S.B. (1990) *The Predictable Failure of Educational Reform: Can We Change Course Before It's Too Late?* San Francisco, CA: Jossey-Bass.
- Scottish College for Educational Leadership (SCEL) *System Leadership*,

Online at: <http://www.scelscotland.org.uk/what-we-offer/system-leadership/>

- Teh, L. W., Hogan, D., & Dimmock, C. (2013) Knowledge Mobilization and Utilization in the Singapore Education System: The Nexus between Researchers, Policy Makers and Practitioners. In B. Levin, J. Qi, & H. Edelstein (Eds.) *The Impact of Research in Education: An International Perspective*. University of Bristol: Policy Press, pp.41-63.
- Zaccaro, S.J., Kemp, C., & Bader, P. (2004) Leaders' Traits and Attributes. In J. Antonakis, A. Cianciolo & R. Sternberg (Eds.) *The Nature of Leadership* Thousand Oaks, California: Sage, pp. 101-124.