
CHAPTER 2**RAISING SOCIAL CAPITAL TO IMPROVE STUDENT LEARNING
OUTCOMES IN SCHOOLS**

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Abstract

If schooling is to respond effectively to the demands of learning in the Knowledge Society there must be a shift in where school reform efforts are focused. This proposition is based in the increasing knowledge we have about school effectiveness and learning, and the fact that high 'input reform efforts' over recent decades have not improved student learning outcomes. The paper focuses on what educational researchers now know 'makes a difference for students', the quality of teaching, and then explores what reform mechanisms should be used to improve this in schools. We argue that school reforms can be successful if two types of capital are raised. As financial capital has been the key to industrial projects for over a century, the post-industrial age requires the raising of human, or intellectual capital and social capital. While raising human capital has been the function of professional development initiatives in schools, this paper will argue that raising social capital has been the missing element in school reform agendas. These are matters for exploration in one of the authors' doctoral studies.

INTRODUCTION

In the complexities of the post-modern age, schools as we know them are increasingly unable to meet the needs of the knowledge society. Mass education, delivered through schooling, is an industrial age invention, which, while having served us well, now needs systemic reform (Beare, 2001; Hargreaves, A. 2003; Hargreaves, D. 2003). This argument is not new. However while it has been suggested that schools and classrooms will be relegated to museum displays just opposite that of the blacksmith (Smith & Lynch, 2002), in reality it is a complex argument that must be resolved within the current socio-political system.

In recent times politicians, educational authorities and academics alike have espoused an array of schooling panacea – from policy rhetoric to cleverly marketed reform programs. However the enormous investment historically

has at best returned only small improvements (Institute for Research on Educational Finance and Governance, 1984; Marzano, Pickering & Pollock, 2001; Rosenholtz, 1985). Ultimately such approaches will not make schools work any better than they are now because such reforms rarely have an impact on the classroom. William Glasser (keynote address, BC Quality Schools Conference, 14 May, 1993) suggested that just as flight needed to move from the propeller to the jet engine to gain the performance improvements required, schooling must move from the current system to a new one.

But here lies the difficulty. For decades, and probably ever since mass schooling came to be, many have argued that the educational institution had to change. However, it is one thing to argue that one of society's pillars is "wrong" from an academic and theoretical standpoint, even with substantiated evidence. It is another to design and implement the alternative. In the absence of an unlikely massive social upheaval, the mechanisms that might facilitate such changes remain unclear.

The mechanism discussed in this paper is the raising of social capital within the teaching profession. The proposition is that attempting to change the education system from within the educational community by building effective networks and partnerships, in contrast to externally imposed agendas, offers the possibility of productive school change (Field, Schuller & Baron, 2000; Mulford, 2003). At the policy level, it requires a rethinking that moves away from the rhetoric of accountability to one of de-privatising teaching practice, basing decision-making in the growing body of educational research, and building "capability" in teachers. In short, raising social capital within schools and across the education community will assist in the development of a mature teaching or learning profession capable of improving learning outcomes for students.

REFORMING SCHOOLS FOR THE KNOWLEDGE SOCIETY

The "knowledge society" is a term that has been used to characterise fundamental changes in industrial societies in the last few decades (Drucker, 1994; Organisation for Economic Co-operation and Development, 1996). These changes include the "large scale diffusion and utilisation" of information technologies, the development of service economies, globalisation, and changing demographic and cultural practices (European Foundation for the Improvement of Living and Working Conditions, 2003).

One of the key elements of the knowledge society is the way in which new technologies have had an impact on how information is gathered, stored, accessed, and disseminated. This information explosion has been a key

component to the rapid societal changes the world has experienced. Paradoxically, while society has changed rapidly, schools, teaching and teacher education have been largely able to maintain the status quo (Moe, 2003; A. Hargreaves, 2003).

However in recent times new technologies have offered educators insights into learning that have not been available previously. The “brain sciences” (OECD, 2002) and a growing research base about school effectiveness (Marzano, 2000) have enormous, and as yet largely ignored, implications for schools and teachers. The opportunity to move from the traditional theories about schooling to a more informed position is still available. The “art” of teaching becomes the “science” of learning (Wise, 2002).

Many of the past efforts to systemically reform schools have not succeeded in terms of improving learning outcomes for students (Hanushek, 2004; Moe, 2003).

The character of reform efforts can largely be described as same operations with greater intensity. Thus, pupil-teacher ratios and class size have fallen dramatically, teacher experience has increased, and graduate degrees have grown steadily – but these have not translated into higher student achievement (Hanushek, 2004, p. 12).

These resource inputs are often used to quantify schooling by such indicators as class size, expenditure per student and teacher qualifications. However it is apparent, based on the kinds of historical data to which Hanushek refers, that further efforts to reform schools through input mechanisms will not deliver the necessary improvements. There needs to be some explanation, in a systems sense, of what schooling is, followed by an evaluation of which elements offer reform opportunities.

In relation to defining schooling, Hargreaves (2003, p. 24) offers that, “the quality of a school is explained in terms of three concepts – intellectual capital, social capital and organisational capital”. Hargreaves defines intellectual capital as an extension of human capital and is broadly defined as the “knowledge, skills, capabilities, competences, talents, expertise, practices and routines” of the people who work within the organisation (2003, p.25). Assuming that higher levels of these three types of capital will translate into improved quality of schooling we start to discuss where our efforts should be directed.

Hargreaves (2003, p.25) defines organisational capital as “the knowledge and skill about how to improve the school by making better use of its intellectual and social capital” and that “great school leaders have organisational capital in abundance.” In a sense then this paper considers organisational capital as it

offers an example of how the raising of human and social capital can be used to improve schools. While it is acknowledged that leadership has an effect on students' achievement (Mulford, 2003; Waters & Grubb, 2004) we leave school leadership to others because its effect on outcomes for students is of a lesser magnitude than the work of teachers. We focus instead on intellectual and social capital.

RAISING INTELLECTUAL CAPITAL - IMPROVING TEACHER QUALITY

There is a significant research base indicating that the most important element in achieving outcomes for students is the teacher (Hattie, 2003; Marzano, Gaddy & Dean, 2000). Student characteristics are important but it is pedagogy that makes the biggest difference for students. While there is evidence that preconditions may influence the quality of pedagogy observed in classrooms, it seems clear that the greatest return and therefore where reform efforts should be targeted is in pedagogical practice. Marzano (2000) conducted a meta-analysis of research into school effectiveness in which the importance of the teacher is confirmed.

(T)he most important factor affecting student learning is the teacher. In addition, the results show wide variation in effectiveness among teachers. The immediate and clear implication...is seemingly more can be one to improve education by improving the effectiveness of teachers than by any other single factor. Effective teachers appear to be effective with students of all achievement levels regardless of the levels of heterogeneity in their classes (Wright, Horn & Saunders, 1997 p.63 cited in Marzano, 2000).

Others have also highlighted the importance of the teacher in school effectiveness (Crowther, Kaagan, Ferguson & Hann, 2002; Newmann & Associates, 1996; Queensland Department of Education, 2001). The question then is how to improve the quality of teachers' teaching prowess?

Improving teacher quality, or raising human capital in schools, may be achieved in two ways. The supply of teachers offers the first mechanism that could be used to improve outcomes for students. If teacher education programs graduated higher quality teachers, individuals having improved pedagogical skills, then, over time, the overall quality of the teaching profession would also be improved. Hanuskek (2004) has offered an interesting economic example for improving teacher quality through a hiring strategy.

For example the average teacher in the current distribution is found at the 50th percentile. Consider a policy where the average of the new teachers hired is set at the 56th percentile and where future hires continue to be at this percentile each year of the reform period. By maintaining this standard for replacement of all teachers exiting teaching (6.6 percent annually in 1994-95) but retaining all other teachers, this policy would yield a 0.5 standard deviation improvement in student performance after a 20 year period. (p.14)

Reforms in teacher pre-service education, as seen in programs like Central Queensland University's Bachelor of Learning Management (Smith, Lynch & Mienczakowski, 2003) are important strategies in improving the quality of teachers. Even modest improvements in the quality teacher graduates will deliver improvements in student outcomes. Hanuskek argues that given three decades of failure to achieve this through increased resources, a similar timeframe that makes a difference for students is therefore justifiable.

However only relying on hiring a better quality teacher is a high-stakes strategy. Given current concerns about attracting and retaining people to the teaching profession generally and teacher shortages, Hanuskek's model could in fact bring about a fall in student achievement over time. A scenario could be that to fill positions, especially in less desirable locations or schools, teachers are hired at below the 50th percentile or that para-professionals are used to do the teacher's job. It follows then that in addition to innovation and improvements in pre-service teacher education, the capabilities of current teachers must be the primary consideration in improving schools.

The second strategy for improving teacher quality is to develop mechanisms to improve the pedagogical practices of teachers currently working in schools. This strategy is not a deficit model considering only under-performing teachers or under-performing schools. It is about fundamentally reforming school by changing the work of all teachers. As an example, Hargreaves (2003) suggests "the cruising schools with coasting teachers who ride in the slipstream of their middle class academic achievers get off scott free" in the existing climate of accountability and current measures of school performance (p. 149). The best teachers make a difference for all students regardless of the quality of the school in which they work or the student's background (Marzano 2000). We return to this matter after examining the impact of social capital on school performance.

RAISING SOCIAL CAPITAL

The concept of social capital is generally defined as social networks and the reciprocities that arise from them (Schuller, Baron & Field, 2000). There are two types of social capital. "Bonding" social capital strengthens ties within groups while "bridging" social capital links groups (Putnam, 2000, p.22). We argue that both kinds of social capital are important in reforming schools and in particular, bridging social capital. Bridging social capital is related to networks and is "better for linkages to external assets and information diffusion" (Putnam, 2000, p. 22). This offers schools linkages to the growing knowledge about learning currently being generated. It is how social capital can be leveraged to affect human capital is of interest in this paper. Social capital requires attention to be paid to the "relationships which shape the realisation of human capitals potential, for the individual and collectively" (Schuller, 2001, p.19). Increased social capital is therefore linked to workplace learning (Schuller, Baron & Field, 2000; Tymon & Stumpf 2002).

There is also evidence that educational and social outcomes for children are strongly correlated with the levels of social capital in their communities and schools.

(S)tudies have found that student learning is influenced not only by what happens in school and at home, but also by social networks, norms, and trust in the school and in the wider community (Putnam 2000, p. 302).

For example, in respect to standardised test scores, Putnam says that social capital is the "single most important explanatory factor", more so than other factors including levels of affluence, educational spending, class size and family structure, of performance on state testing programs. Putnam's argument provides a compelling rationale for the raising of social capital in schools: "social capital - not poverty or demographic characteristics per se - drives test scores" (2000, p.300). Putnam also discusses the benefits of social capital at the individual school level.

Social capital within the schools walls has a plethora of benefits to students, teachers and administrators. Studies going back at least thirty years have shown that smaller schools tend to outperform large schools in large part because smaller schools afford more opportunities and encouragement for students to engage with one another in face-to-face extra curricular activities and to take responsibility for school clubs and so forth. (2000, p.304)

The Queensland School Reform Longitudinal Study (QSRLS, 2001) also found that social capital, in the form of professional learning communities,

was an important factor impacting on the professional work of teachers. Encouragement for the establishment and support professional learning communities within schools was a recommendation of the QSRLS.

(T)he development of professional learning communities within schools is associated with greater use of more productive classroom pedagogies by teachers. More specifically, the data demonstrates that in Education Queensland schools there are strong links between three key variables and more frequent use of productive classroom pedagogies:

1. the degree of teachers' collective responsibility accepted for student learning;
2. the overall level of professional learning community operating within a school;
3. the strength of leadership focus on pedagogy (Queensland Department of Education, 2001, p.11).

Establishing professional learning communities is a component of raising social capital, and an example of "bonding" social capital. However as previously discussed, "bridging" social capital has a critical role in enhancing a school's effectiveness. In an environment in which research is generating new knowledge about what is important in schools, bridging social capital can be used to improve educational practices and as such must be considered.

As an example of how bridging social capital plays its part, Hargreaves warns that there is a transition to creating professional learning communities.

(T)rying to create professional learning communities among teachers whose skills and confidence are underdeveloped is not a practical option. It is no use sharing knowledge until there is something worthwhile to share (2003, p.152).

In relation to teacher professional learning agendas the QSRLS also found that "expert" knowledge must be directly sought when social capital is being raised to improve teaching.

The QSRLS data demonstrates that both within-school and external professional development is needed to enhance teacher capabilities. Both forms of professional development play important and independent roles in improving school organisational capacity and enhancing teacher capital (Queensland Department of Education, 2001 p.13).

Cunningham (2002) discusses the need to focus on the individual and the organisation when developing organisational training strategies, stating that these must address human as well as social capital. Cunningham favours capability development, which encompasses human and social capital dimensions rather than, for example, professional development which may be limited to impacting on human capital (2002, p.3).

TEACHER CAPABILITY DEVELOPMENT

Stephenson (1999, p.1) describes capability as being “an all round human quality, an integration of knowledge, skills, personal qualities and understanding used appropriately and effectively – not just in familiar and highly focused and specialist contexts but in response to new and challenging circumstances.”

Capability is much more than competence. In the past developing competence, the possession of specialist knowledge and skills relevant to a specific context, may have been sufficient for workplace success. Developing a knowledge and skills set that replicates the traditional classroom context is a “competence” indicator. However, in the knowledge society, with non-linear change and unfamiliar problems, competence is no longer sufficient. Teachers must move from being competent to being capable (Smith, Lynch & Mienczakowski, 2003).

Among a list attributes Stephenson suggests that to be “capable” an individual needs to have “justified confidence, based on real experience, of their specialist knowledge and skills and a ability to manage their own learning and to learn from experience” (1999, p. 1).

Crowther et al (2002, p. 4-5) coined the phrase “teacher leadership” to define capability as it relates to the teaching profession. Teacher leaders, according to Crowther, convey conviction about a better world, strive for authenticity, facilitate communities of learning, confront barriers, translate ideas into action, and nurture a culture of success.

Individual capability is therefore a complex phenomenon with personal characteristics that are not as straightforward to develop, or measure, as competencies, which to a large extent are regularly observable and standardised. Embedded in teacher capability is ongoing professional learning and improvement. This complexity is not surprising as it is reflected in the characteristics of the knowledge society (European Foundation for the Improvement of Living and Working Conditions, 2003).

This is why reform efforts focused on just raising intellectual capital, especially through activities described as “professional development”, have

not been successful. The lamentable outcomes from investment in professional development initiatives are evidence enough that this alone is not the way forward. For example, nearly 56.8% of Australian teachers responded positively to a survey question that professional development had a 'very high priority' in their working lives (Commonwealth of Australia 2001, p.135). In an industry fundamentally about learning, in a time when knowledge about learning is exploding as a result of new research and technologies, the concern must be why the remainder of the teaching workforce does not view professional development in this way. We now consider how social capital can be increased in schools.

STRATEGIES TO RAISE SOCIAL CAPITAL AND TEACHER CAPABILITY

"Production line" class groups of one teacher with twenty-seven students in batteries of rooms working to bells, inflexible time tables and agrarian-age yearly structures, are almost indefensible schooling structures in the knowledge age. Much of the work teachers do is more 'baby-sitting', record keeping and bureaucratic compliance, than related to learning design. A core issue is the extent to which teaching practice is privatised. What we mean here is the professional isolation of the traditional classroom, and organisational structure of the traditional school, limits social capital due to the individualised, and private, nature of the teacher's work. It is not surprisingly that large variances in the quality of pedagogical practices exist between teachers within the same school (Marzano, Pickering & Pollock, 2001; Queensland Department of Education, 2001). Teaching practice must be de-privatised so it can be informed by collegial feedback and current research and subject to continuous improvement (MACER, 2004). We suggest three strategies related to raising social capital. The first strategy examines raising bonding social capital within schools. The second discusses raising bringing social capital with organizations that hold, or have access to, new research about learning. And the final strategy is related to focusing professional learning on areas that make a difference to student learning.

RAISING BONDING SOCIAL CAPITAL WITHIN SCHOOLS AND THEIR COMMUNITY

A strong school culture with shared pedagogical understandings and practices is important (Crowther et al., 2000; Queensland Department of Education and the Arts, 2004; Waters & Grub, 2004) but in traditional school structures limited professional dialogue between teachers inhibit the development of such a culture. High levels of bonding social capital are important to establishing and maintaining a school ethos that celebrates teaching and professional learning.

To facilitate a transition from traditional school structures to professional learning communities, reform efforts are required to alter the current work arrangements for teachers to overcome barriers to professional dialogue (Eaker, DeFour & Burnette, 2003; Fisher, 2002; Hargreaves, 2003; Queensland Department of Education and the Arts, 2004).

Within the school opportunities for teachers to discuss their work can be maximised by teachers being encouraged to work in teams, perhaps through innovative approaches to curriculum like Queensland's New Basics (Queensland Department of Education and the Arts, 2004). Teacher non-contact time can also be scheduled so teachers access this together to plan curriculum, pedagogical approaches and assessment tasks. Other internal school structures and protocols should be designed to focus professional discussions on teaching and learning.

RAISING BRIDGING SOCIAL CAPITAL WITH RESEARCHERS

Reform efforts to improve school effectiveness must inform teaching practice through current research related to learning. Mechanisms to do this may be based on the raising of "bridging capital" where meaningful partnerships with universities, research institutes, professional associations and between schools can provide "expert" knowledge about teaching and learning that is not easily accessible by teachers struggling with the business of their day to day work.

Central Queensland University's model for delivering the Bachelor of Learning Management (BLM) is an example where a partnership between schools and the university raises bridging social capital (Lynch, 2004) between professionals in the two organisations. One of the ways that the partnership is played out is through the concept of a "Teaching School" where BLM students meet teacher registration requirements by completing a practicum. This becomes a mechanism to inform and challenge existing practices within the school because supervising teachers engage with new knowledge as they interact with the BLM students.

FOCUSING ON CAPABILITY DEVELOPMENT

Hargreaves (2003, pp.149-153) suggests that "performance trainings sects" must be replaced in schools with "professional learning communities." This moves the learning agenda from traditional model of gaining competency, to a broader one of building capability (Stephenson, 1999). We argue that teacher capability has specific skills and professional knowledge and activities aimed at building teacher capability should be focused on pedagogy, curriculum and assessment, with pedagogy being the most important. Such a focus is necessary in the smorgasbord of professional development activities currently available to teachers. Many existing professional development

activities present the latest “good idea” through proven to be ineffective models that dominate the professional development landscape, namely the one-off workshop and after teaching hours activities without follow-up (Commonwealth of Australia, 2001, p.9).

We argue that teachers, principals and school communities need to become more critical customers in the educational professional development market. Three questions could be asked to ascertain the relevance of a learning opportunity and its ability to impact on both human and social capital at the school level. Firstly, to what extent does the professional development initiative focus on what the most important aspect in the learning process, namely the work of the teacher? Secondly, is the content in the professional development activity supported by evidence-based research? And finally, will the professional development activity enhance the professional learning community, either by facilitating professional conversations within the school, or by establishing professional networks and partnerships eternal to the school?

CONCLUSION

This paper has canvassed three important ideas that require further development and evaluation. The first is that schools are not isolated from the knowledge society’s advances in technology and the proliferation of information. This information includes research underpinning the understanding that the work of teachers makes the biggest difference to student learning. However while teachers have an increasing amount of evidence-based knowledge available to them about what improves student learning outcomes, mechanisms to increase the application of this knowledge in classrooms require greater attention.

The second idea is centred on the failure of nearly four decades of reform efforts, particularly those concerned with educational inputs, to improve students learning outcomes (Hanushek, 2004). To sum up, school reforms efforts that have been implemented have not worked, and while there are new insights into what will make a difference, this knowledge is not yet informing current reform efforts.

The third idea relates to Hargreaves (2003) assertion that the quality of a school is explained in terms of three types of capital; intellectual or human capital, social capital and organisational capital. Human capital is defined as the “knowledge, skills, capabilities, competences, talents, expertise, practices and routines” of teachers (Hargreaves, 2003, p.25). Social capital is the key to realising the potential of human capital (Schuller, 2001). Based on the assumption that increased levels of these capitals will improve the quality of

the school, specifically learning outcomes for students, an argument is presented that implementing strategies to raise social capital in schools provides the leveraging mechanism needed to mobilise human capital. Strategies that raise social capital in schools, and between schools and other organizations with expert knowledge about learning, are necessary in school reform efforts. Establishing meaningful partnership arrangements, for example with a university, is offered as one avenue for this to be achieved.

Developing the capability of the current teacher workforce requires a focus on what is important. The most important element is the pedagogical work of the teacher. Teacher access to professional development must be guided by how that professional development raises social capital, bridging and bonding, and to what extent it accesses current research about pedagogical practice.

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