Chapter 1

Intellectual Capital and Professional Development Schools

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Primarily in business, but in other fields such as psychology and sociology, *intellectual capital* is what everyone knows and brings to an organization that enhances its value to others (Stewart, 1999). Researchers in the area of intellectual capital claim that assessing and managing intellectual capital is suitable for application in many different markets and in many different fields and that it creates a significant contribution to the value of the organization (Roos & Roos, 1997). The study of the organization occurs through examining both tangible and intangible assets. For example, a business has a financial statement that says one thing about the value of a company to shareholders or owners, but it also has other assets, intangible assets, that say something different about the company (i.e., numbers of clients, longevity of clients, information management systems, project management systems, employee training). When applied to the field of education, schools have accountability reports and test scores that say one thing about who they are and the school's value to students, but there are also intangible assets that should not be overlooked that are also a value to students (i.e., parent involvement, external partnerships, accountability systems, curricular frameworks, professional learning for teachers).

Although there are variations in the conceptual framework that defines intellectual capital in the business community, intellectual capital is typically comprised of three components: external capital (i.e., the stock market, the customers, the suppliers), internal capital (i.e., organizational structures, processes, management), and human capital (the knowledge, learning, and growth of employees) (Kaplan & Norton, 1996; Stewart, 1999; Sveiby, 2001).

Applied to education, external capital includes the school district, the greater school community, parents, local businesses, and external organizations that have a role in the school, such as a local university. Internal capital includes governance structures; curriculum development; management processes; hiring, recruiting, and retaining teachers and administrators procedures; and renewal or reform processes. Finally, human capital includes the educators' knowledge and the structures and processes for professional development.

Assessing and managing intellectual capital is critical to any organization, and in schools where intellectual capital is the keystone of the realm, it should result in students who can learn, in environments that meet their needs, and in an understanding of what educators can bring to each and every person in the community. In professional development schools (PDSs), managing intellectual capital is even more imperative, as there are more resources, systems, and knowledge to manage. If managed intentionally and properly, this university–school partnership could add value to and ultimately increase student learning.

Professional Development Schools

Professional development schools are special schools where there are unique university-school relationships that can change a school culture and add value to students and the community. Teitel (2003) stated that the biggest and, ultimately, most important questions asked in any research on PDSs concern impacts—impacts that produce improved student learning outcomes; improved preparation of preservice teachers, administrators, and other educators; and improved, continuing professional development and learning for all school- and university-based adults who work in the partnership (p. 11). The complexity of assessing a PDSs impact on student learning is well documented (Abdul-Haaq, 1998; Murrell, 1998; Teitel, 2003). The variables are numerous and difficult to isolate but include the impact of other school initiatives, the time teacher candidates spend in a particular school or classroom, the quality of teachers in the school, the leadership of the administrators, and external pressures of accountability. In addition to school variables, there are university variables, such as how the university defines a PDS, the time professors are engaged in the school, and the quality of the resources they bring to the school.

The National Council for Accreditation of Teacher Education (NCATE, 2003) provided evidence from a number of sources that PDS candidates perform better than traditionally prepared candidates (Gill & Hove,

1999; Houston, 1999; Neubert & Binko, 1998; Shroyer, Wright, & Ramey-Gassert, 1996). It is also cited that the retention of PDS-trained new teachers is three times that of traditionally prepared teachers. Also importantly, student achievement in PDSs exceeds expectations, and students in PDSs show higher gain scores when compared to non-PDSs (Gill & Hove, 1999; Pine, 2000).

However, there are still questions about what happens in a PDS, what's making a difference, what the activities look like, and what the intangible assets are that could improve student learning. Tangible assets might include reduced student–adult ratios, professional development for clinical teachers, additional leadership within the school, additional adults in the school to lead enrichment activities, and changing systems that are inclusive of new resources. Intangible assets are difficult to see and difficult to assess, but they include such things as the impact of the professional development, the extent of the relationships that build over time, changes in leadership, and the increase in student effort. Taking stock of these intangible assets that contribute to the school's intellectual capital is imperative if we are to better understand what happens in a PDS and why these assets are so important to the success of the teacher candidate and the students in the school.

Intellectual Capital, Professional Development Schools, and the Logic Model

If educators at universities and in schools are going to renew schools to close the achievement gap, they must keep their eye on the prize—student learning. In PDSs, being intentional about the wise use of resources in schools and how they complement district and school resources to build intellectual capital benefits not only the school but the school district.

The question raised by Teitel about research on PDSs remains. How do we connect the activities of the PDS partnership to student learning? Killion (2002) suggested that staff developers use a logic model to evaluate the impact of professional development on student learning. The model is a flow chart that sequences the critical components of a program, including inputs or resources, activities or processes, initial outcomes, intermediate outcomes, and results. An example might be a school district that provides instructional coaches to schools. Those coaches have activities and processes that they use to change or modify the instructional practices of teachers. It is anticipated that those changes in practice create changes in student behavior or effort and in turn increase student learning.

A PDS example might be the use of teacher candidates. Teacher candidates are a critical component that would be included in a logic model. The teacher candidate (resource) coteaches (activity) with a clinical teacher. This adds to the knowledge of both the novice and the experienced teacher (initial outcome). This causes better instruction for students (intermediate outcome) and eventually increased student learning (result). By assessing intellectual capital throughout the school and examining where the school and university meet, a school can begin to see where the logic model leads and the impact that being a PDS has on student learning.

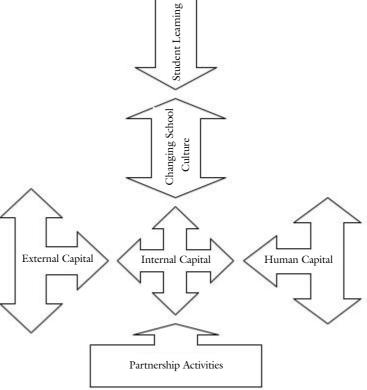
In a PDS, the partnership between the university and the school should enhance all of the elements (external, internal, and human capital) if the partnership is sound and is fully functioning, based on the needs of an individual school. A friend of mine was once asked, "If there was one thing that could change of all of education, what would it be?" Her response was, "Get rid of all the people who believe there is just one thing that would change all of education." It's not one thing that will change all of education and increase student learning but the activities of partnerships that create motion and synergy. Partnerships, such as PDSs, can make a difference in the school and be an example of how to prepare teachers, increase teacher quality, renew curriculum, institute systems for performance, and focus on student learning at the same time.

Figure 1.1 illustrates how the models of intellectual capital and logic are combined to provide a conceptualization of how partnership activities can, through a sequence of events, increase student learning. In other words, the more you know and intentionally manage the activities of the partnership, the more likely you are to act as pistons, driving energy to the elements of intellectual capital. The more you build intellectual capital, the more you increase growth and competence and create cultural change. And finally, the more teachers, administrators, parents, and others in the community become more competent, grow, and change, the more likely it is that student learning will also be impacted in a positive direction.

The model is not one-directional, however; as the school community learns more about how students learn and how the culture responds to change and innovation and as each of the three different types of capital are increased, the activities of the partnership are informed. It is this feedback loop that implies continuous learning for everyone or simultaneous renewal.

Important to note is the concept that the partnership is the school and should be thought of as an integral part of the school. The partnership is not another program that is "extra" or "on top of" the work of the school. The school needs to think of itself as a PDS just like schools think

FIGURE 1.1. Intellectual Capital in the Professional Development School



of themselves as a charter school, International Baccalaureate (IB) school, dual language school, alternative school, and so on. It's who they are, and the resources extend the possibilities of what they can do for students. This doesn't mean that they aren't something else, too—some of our PDSs are also IB schools, dual language schools, or work as professional learning communities, but it's the blending of the work that the school can utilize to boost renewal efforts.

In 1993, the teacher education program at the University of Colorado Denver (UCD) was redesigned, moving from traditional student-teaching placements across the metro area to fully integrated courses and field work conducted in partnership with PDSs. The program had as its theme "Teacher Leaders for Tomorrow's Schools," building on the deep experiences that

most of the teacher candidates brought to this teacher education program. Since that time, the teacher education program has become a model of instructional and learning excellence within a PDS design.

We currently partner with 23 PDS sites across six Denver metropolitan school districts that primarily serve students from low-income and ethnically diverse backgrounds: Adams Five Star School District, Adams County 14, Denver Public Schools, Douglas County Schools, Aurora Public Schools, and Jefferson County Schools. Our partnership program reflects an urban mission to ensure that new teachers are skilled in working with diverse populations. We prepare approximately 400 teacher candidates each year at the graduate, postbaccalaureate, and undergraduate levels.

Preservice teachers spend approximately 100 days, 8 hours per day, of the school year in a single PDS at the elementary level and across a middle and high school PDS at the secondary level. Each PDS has the support of a university site professor (a faculty member who works at the school 1 day per week for the length of the school year) and the school's site coordinator (a master teacher on special assignment and released from normal teaching duties). The site professor and site coordinator work together as a team to prepare 12–15 teacher candidates each year, to provide professional development for classroom teachers, to engage in the reform of curriculum and instruction, and to conduct research or inquiry, all with a focus on the improvement of student learning.

Throughout this book, we hope to provide the reader with evidence that being a PDS can impact student learning. As a business is not solely measured by its financial statement, a PDS can not simply be measured by its test scores. Intangible assets are important to the value the PDS has for all students and the significance of the partnership.

Chapter 2 presents an "intangible asset monitor" that we have adapted for our PDS environment that gives schools a tool for continuous monitoring of the partnership activities. Using this monitor can ensure that the activities and systems match school goals and resources are being utilized wisely. The monitor is also a planning tool. It can provide school leadership teams with ways of thinking about the partnership that will promote the partnership within the community for sustainability, create systems that utilize the partnership resources for meeting school goals, and find opportunities to continue professional learning and increasing instructional quality.

Subsequent chapters provide in-depth essays from PDSs that exemplify how intellectual capital is changing the culture of each school and the benefits to student learning. Each story has been written by those that have been closest to the school, the site professors, site coordinators,

teachers, and others. They are told in their words and from their perspectives. Each essay briefly describes the school or context in which the work is being done, describes the project or activities and the link to intellectual capital, and provides commentary about the impacts the work is having on its stakeholders.

These stories are important to us, and we believe that they will be important for others who are also using a PDS model and for those considering it. Whether you are a K–12 educator or a university faculty member or administrator, this work will help you to better understand why PDSs are critical to teacher education and to student learning.