The Facilitation of Professional Development by School Leaders:

The Lesson Study Model

Dr. Susan J. Nix

West Texas A&M University

Canyon, Texas, USA

**Abstract**

This research examines the professional development of school leaders and teachers in order to ascertain the impact of continued development for educators working in a system that expects ongoing professional development of all its educators. In particular, the movement into Professional Learning Communities has been piloted in a large southwestern school district. School administrators facilitated the process. This research will examine the role of the principal in leading this movement towards a whole school involved in the practice of Lesson Study and the impact of the change process on student learning.

**Description of presenter**

Dr. Susan J. Nix is the Program Chair and a tenured Associate Professor in Educational Leadership at West Texas A&M University. She has served eight years at the university level, seven years as a school administrator and nine years as a teacher for a total of 24 years in education. Her research interests include instructional leadership, the impact of poverty on learning and the importance of alignment to educational excellence.

**Introduction**

Criticism of public schools abounds. Through the participation of the researcher with a large southwestern school district, opportunity was created to observe the dynamics of change occurring within that district, particularly using the vehicle of Professional Learning Communities and Lesson Study (Lewis, Perry, and Murata, 2006) to improve teaching practice. The large southwestern school district, led by a superintendent determined to reach success for the students from a wide-ranging socio-economic status, decided that district administrators would need to work together closely following the Professional Learning Communities best practices (Dufour & Eaker, 1998). In doing this, meetings were held at the administrative education center between the superintendent, school principals and district support personnel.

Groups began meeting to discuss the following topics: Lesson Study, Creating a Culture of Universal Achievement, Response to Intervention, Vocabulary, Differentiated Instruction, Problem-Based Learning, and Technology. The principals involved volunteered to serve in what they called Principal’s Action Research and Collaboration (PARC) groups. Each topic was led by a volunteer participant/administrator. All groups met regularly throughout the school year to learn about their topics and to guide the implementation of change on their representative campuses. After about two years, the neighboring university became involved as faculty members were asked to choose an area of interest and participate with that group. As an experienced school principal focused on instructional practices this researcher decided to join the Lesson Study group. It took over a year of participation to determine how to make a contribution to this effort and as a result, this research project was broached with the Lesson Study group of administrators.

The objective of attending and presenting on this topic is threefold: 1) to share the impact of the Lesson Study practice in the school district observed over time; 2) to solicit the way in which a school administrator facilitates change to the Lesson Study Model; and 3) to describe the partnership between the university researcher and the school district implementing the Lesson Study format that enabled the study.

**Literature Review**

This literature review will be abbreviated, enough to provide the context for understanding the concepts of the Lesson Study Model, due to the fact that the emphasis will be on the implementation of the Lesson Study Model as a professional development practice adopted by a large southwestern school district.

Lesson Study comes from the” Japanese words *jugyou* (for instruction, lessons or lesson) and *kenkyuu* (for research or study)” (Lewis, et.al.2006, p.3). These words together encompass “a large family of instructional improvement strategies, the shared feature of which is observation of live classroom lessons by a group of teachers who collect data on teaching and learning and collaboratively analyze it” (Lewis, et.al.2006, p.3). Lesson Study is considered a form of action research that is used to guide the instructional process with the end result of an improved learning experience for students. Lewis (2002) further described Lesson Study as a “simple idea” (p.1), but one that encompasses a “complex process, supported by collaborative goal-setting, careful data collection on student learning, and protocols that enable productive discussion of difficult issues” (p.1).

Inherent to the “teacher led instructional improvement” (Lewis, 2002, p.2) is the cycle that includes: goal setting and planning, conducting the research lesson with other teachers collecting the data, lesson discussion and consolidation of learning, which includes reflection over the entire cycle. In fact, Lesson Study has a role in the process of systemic change (Lewis,1998). It has the advantage of encouraging the collaboration between teams of teachers with the addition of causing excitement about learning by the students involved. Using the problem based model, lessons are planned to pose a question or problem to students over concepts they are required to master. Without providing all the typical instruction needed, teachers would facilitate a lesson for students to problem solve. Students would be observed for how they learn individually and in groups and the method for their problem solving efforts. The insights gained by the teachers can then be applied across disciplines to the benefit of the entire teaching and learning environment.

Stigler and Hiebert (2009), authors of *The Teaching Gap,* explained that necessary to real change in the teaching and learning environment of schools, is a critical cultural change involving the ways that teachers think about teaching and learning. When comparing students and teaching in high performing countries (in particular, Germany and Japan) with the United States, it was decided that the way to impact student learning was to “require consistent opportunities over long periods of time for teachers to study and improve their own teaching and the teaching of their colleagues” (Stigler & Hiebert, 2009, p. 37). Lesson Study would seem a way to accomplish the goal of improved teaching and learning and would benefit both teachers and students. However, making this kind of systemic change does not come easily.

Beginning in 1999, the Lesson Study model was introduced to schools in the United States by the Third International Mathematics and Science Study (Lewis, et.al.2006). Within a four year time span, over “335 U.S. schools across 32 states” examined and used the Lesson Study model (Lewis, et.al. 2006, p.3). The process seemed to embrace math and science teaching and learning but still managed to differ in the way it was and continues to be implemented across a variety of school settings. When teachers involved in the Lesson Study process have the time to actually do what they intend the students to do, the value of the underlying theories of professional learning are impacted (Lewis, et.al. 2006).

Japanese educators have been observed scrutinizing the teaching and learning process, sometimes resulting in the “reshaping of their own practice and research lessons” (Lewis, et.al., 2006, p.6). However, this process took place over decades of time and also included a public dialogue with visiting teachers and university researchers for a “lively discussion of the local theory of the innovation” (Lewis, et.al. 2006, p.6). In doing this, the practice of Lesson Study provided a public and verifiable professional knowledge base about teaching and learning that could be shared. By its very nature, Lesson Study has the potential to impact teaching and learning, and as a result, both teachers and students benefit long term.

Necessary to a clear understanding of the Lesson Study model implementation is an awareness of the teacher evaluation system used by this district. The evaluation system contains eight domains with fifty critical attributes upon which teachers are evaluated yearly. Professional development accounts for four of those critical attributes. Even though teachers are expected to participate in continued professional development, it is essential that whatever they do has a positive impact on student learning. Therefore, professional development in this system must be supported by administrators at all levels of the school system and by all teachers who expect to remain employed in the profession and have a positive impact on student learning. The Lesson Study model of teaching is, by nature, considered professional development.

Lesson Study fits the expectation that educators will acquire professional development experiences with an impact on instructional practices and student learning. In the midst of a national testing focus as an attempt to demonstrate accountability, schools can work toward excellence by implementing research based professional development (Mendez,1992). Lesson Study embraces research in the classroom that directly influences the outcomes of student success. Reflection is essential to teaching in professional development experiences (Loucks-Horsley, et.al.,1987), therefore, Lesson Study, with its components of discussion and consideration of how students learn is exactly what teachers should be doing in preparation for teaching. School culture is clearly impacted using the Lesson Study approach to professional development because there is the creation of a learning community (DuFour, 1997; Loucks-Horsley, Harding, Arbuckle, Murray, Dubea, & Williams, 1987). Even though teams of teachers and administrators work together on a campus during the Lesson Study experience, learning occurs for the teachers about their teaching practice and for the administrators about their leadership practices. In this way successful professional development blends both independent and interdependent learning techniques, and further maximizes growth (National Staff Development Council, 1995). Lesson Study embodies characteristics of reflection, research, continuity and collaboration and is a continuous process (Gusky, 1997; Loucks-Horsley, 1994) that evolves to meet the needs of the school personnel in the best way possible.

Currently, school administrators in Texas function in a highly accountable environment based primarily on the success of students on a standardized test. Within this culture, it becomes readily obvious that for an administrator to attempt something so different from the norm requires central office support and the willingness to give the process time to be learned by the teachers and then utilized to ultimately benefit students. This study involves one large southwestern school district that made the commitment to try different strategies involving administrators and teachers with the ultimate goal of positively impacting student learning, in particular, using Lesson Study.

**Theoretical Framework**

This qualitative case study is grounded in phenomenology. The researcher, having served as a principal previous to university work, possesses prior knowledge about school administration and has an awareness of the necessity for quality instruction resulting in student success. However, the understanding of the Lesson Study model was lacking. Thus, with the implementation of Lesson Study into a few schools in a large district, phenomenological inquiry facilitated the meaning making that should occur in such a study. Basic assumptions of phenomenology by Moustakas (1994) were the guiding tenet in this study: 1) “the appearance of things” to seek meaning from appearances and arrive at essences through intuition and reflection on conscious acts of experience; 2) the assumption of the interrelation and inseparable components of meaning between the self and world; 3) questions give direction and focus to meaning; 4) the value of the researcher’s thinking are considered as primary to the study; and 5) the impact of the researcher on meaning making.

Additionally, making meaning from the perceptions of participants or change makers, the teachers and administrators involved in the district and campus level meetings for professional development becomes critical, since it is their perceptions that ultimately drive the understanding and practices that impact teaching and learning in schools.

**Methods, techniques, or modes of inquiry**

Through attendance at district leadership meetings, the researcher has observed and participated in the discussion between and amongst the school leaders involved in implementing the Lesson Study practice. Initial interviews began at the invitation of the school principal whose elementary campus started the implementation of the Lesson Study model first in the school district. Unstructured interviews were conducted and led by events observed. Notes were taken to supplement audio recordings in order to collect data for content analysis after the fact. Additionally, archival documents contributed by the school administrator provided the necessary background for understanding the Lesson Study practice on his campus for four years. As an ongoing study that has a timeline from May, 2011 to May 2012, school site visits will be scheduled by the researcher to observe the actual Lesson Study Model on a campus once school meetings begin in early August.

Additionally, another elementary school in the same district has decided to begin using the Lesson Study model in the upcoming school year, 2011-2012. This study will then encompass two schools, the first one – four years into the Lesson Study practice and the second one – at the beginning of the Lesson Study implementation.

**Goodness, Credibility and Transferability**

While reliability, validity, and generalizability are tests of quantitative research (Gall, Borg & Gall, 1996; Guba & Lincoln, 1981; LeCompte & Goetz, 1982; Merriam, 1998), the qualitative researcher refers to the goodness, credibility, and transferablity of a study (Yin, 1994). The goodness of a study refers to the extent to which what is recorded in the data actually occurred (reliability), and the extent to which there is a “fit” between the researcher’s analysis categories and interpretations and what is actually true (validity). Credibility is the extent to which data, findings, and conclusions are accepted as believable by participants and readers. Credibility is enhanced by triangulation, the use of multiple data and in-depth analysis to identify patterns across data (Denzin,1978; Gall, Borg, & Gall, 1996; Merriam, 1998; Stake, 1995; Yin, 1994). By verifying information on documents with interviews and observations triangulation will be accomplished.

Extensive journaling by the researcher will assist with maintaining the goodness of this study. Observation of the entire cycle of Lesson Study (Lewis, et.al., 2006) from leadership to teacher to classroom implementation is expected and will not be finished in a short span of time. It has taken time to get to this level, where university faculty were invited to participate and in that time, school leaders have already begun to implement the Lesson Study Model first with volunteers and then moved on to whole school participation.

**Context of the Study**

**District Structure**

For efficiency, the district is divided into four clusters made of elementary and secondary schools that feed into the schools within each cluster. At the time the idea of Lesson Study was brought forth, the District Superintendent was already looking for ways to improve student learning in order to move the district forward and had already begun gathering groups of community members, school board members, school administrators, and central office personnel to solicit ideas for improved student learning. In a district with over 31,000 students from a varying diversity of cultures and ethnicities, he wanted to move the district forward, according to the district professional development director. Additionally, she explained that what was different about this administration was the fact that principals were personally involved in the improvement of their own professional knowledge in anticipation of implementing research-based methods and strategies across the district with the expressed goal of improved student learning.

**Demographics**

An examination of the demographics (See Figure 1) of the student population for the District in comparison to School 1, the school that has implemented Lesson Study for four years, is necessary to gain a perspective of the school’s diversity and assessment scores. Data for the 2010 school year had to be used since this researcher does not currently have access to the 2011 data. When comparing School 1 to the District, it becomes obvious that it does not parallel district demographics. In fact, the African American and Hispanic student populations are both lower in School 1 than in the District, while the White student population is 26% more than the District. The Economically Disadvantaged students at School 1 equal 65% of the District numbers. The economically disadvantaged characterization is based on household income and family size. According to the Limited English Proficiency statistics, School 1 has an insignificant percentage in comparison to the District. However, it is important to note that those students at School 1 qualifying as At Risk due to some of the following reasons: primary children not performing well on a readiness test or assessment instrument, students who have failed one or more grades, students with limited English proficiency, students who are homeless or students who are under the jurisdiction of the law or protective services (PEIMS, 2010), have a noticeably higher percentage (75%) in comparison to the District. This means that the student population at School 1 is mostly white, English speaking, and can be characterized as At-Risk and Economically Disadvantaged according to their reported demographic data.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AA | Hisp. | White | Nat.  Am. | As. Pac. | Econ. Dis. | LEP | At Risk | Reading | Math | Writing | Science |
| District | 10 | 33.9 | 52.9 | .1 | 3.2 | 64.9 | 12.6 | 45.7 | 90 | 85 | 92 | 84 |
| School 1 | 2.5 | 17.5 | 79 | .3 | .8 | 42.5 | 1.8 | 34.3 | 95 | 92 | 85 | 85 |

**Figure 1: AEIS Data Comparison of Demographics and Testing 2010**

(all numbers in percentages)

An initial examination of assessment data in Figure 1 demonstrates that School 1 is above the District in three of the four tested areas: Reading, Math, and Science. However, looking at one year in isolation in a school that has participated in the Lesson Study model over a four year time span does not provide enough information upon which to determine its extended impact on student learning.

Documentation provided by the principal of School 1 illustrated the implementation process of the Lesson Study model. Beginning, in the 2007-2008 school year, one team of seven teachers volunteered when asked by the principal to partner with him and engage in two Lesson Study cycles focusing on problem-based learning, one each semester (in the fall and spring). The first research lesson was led by the principal and the second was teacher led. Additionally, these volunteer teachers attended the Chicago Lesson Study Conference to increase their professional knowledge base.

Year two, (2008-2009), saw the implementation of the Lesson Study method as a school wide venture. Pairs of teachers from the first year led other teams through the same occurrence of one Lesson Study experience a semester, again focusing on problem-based learning. This time lessons were created for each of the four core subjects: reading, math, writing and science. The Chicago Lesson Study Conference again served as an additional professional development experience for new teachers to the process.

The third year, 2009-2010, found four school wide Lesson Study teams shuffled to work with a variety of grade levels on the same team but with different members, conducting a research lesson once each semester in the fall and spring. Patsy Wang-Iverson, a renowned researcher of the Lesson Study methods, visited the campus, providing valuable input to the entire process for the year. Problem-based learning was the focus again.

In the 2010-2011 school year, four teams continued the methodology but with a difference. Teachers decided the school wide focus would be math. As a result of previous experiences using the Lesson Study model, teachers realized the need for concentrated math instruction, particularly in what was considered a weakness, measurement, within the problem-based methodological approach. It was at the end of this school year that this researcher joined the effort to research the process of implementation of the Lesson Study Model on this campus.

**Principals’ Perceptions**

As a result of participation in the Principal Action Research and Collaboration, this researcher sat in on principal conversations sharing the status of the Lesson Study model of teaching on their corresponding campuses. In particular, in May, 2011, both elementary and secondary principals met and shared their reflections over the current year’s professional development experience, the Lesson Study model.

One elementary principal said his teachers are more open to constructive criticism as a result of working together this way. He has plans for his whole school to become involved in the Lesson Study model, primarily as a result of this positive experience.

One secondary assistant principal discussed his teachers and the subjects that they taught this year (2010-2011) using the Lesson Study model. This included Math (third year using this methodology), Science (first year), Biology, Chemistry and English, with varying degrees of success and/or buy-in from teachers. The Chemistry teachers were concerned about leaving their classes in the hands of substitute teachers and the English teachers seemed to approach the process as an obligation. Math and Science, on the other hand were successful for the teachers and students.

Another elementary principal expressed that her teachers learned about the importance of being prepared to teach, for example, what to do when a planned Lesson Study is expected to use technology and the technology fails. Additionally, these same teachers mentioned that when they are not doing something new, there is less pressure on the teachers. This faculty also learned about student inability to understand digits in the tens’ place in math and commented that the second teaching experience was better than the first and follow-up sharing time has increased.

In her third year of implementing this professional development model of Lesson Study, one elementary principal mentioned not knowing what to expect from two new teachers [to the profession] on campus, but was pleasantly surprised when they embraced the experience and expressed a desire to apply the practice vertically.

Overall, principals noticed an increased focus on student learning, interest in teaching more than two cycles of the Lesson Study, a new depth to discussion and planning, a willingness to use the Lesson Study model while adding Differentiated Instruction as a requirement of teaching, and increased awareness of student ability levels and learning styles that led to creating a meaningful, relevant, engaging and problem-solving activity for instruction.

Documents containing reflections from the third year of implementing the Lesson Study model at School 1 contained comments such as, “never witnessed the level of professional trust and growth fostered by Lesson Study,” and “this was the first time to have a teacher ask to allow another teacher time to visit and observe teaching.” As a result, the principal remarked that Lesson Study “impacts a campus systematically and culturally,” and it is a tool that facilitates “meaningful vertical collaboration.” Additionally, when the principal was approached by a teacher to share a book that she was reading, she wanted more than to just let him borrow the book, she wanted to discuss it with him. This was reported as a very different experience from years prior to the Lesson Study model.

**Teachers’ Perceptions**

Interviews of teachers at School 1 are the only teacher interviews included in this paper and they occurred in multiple small groups of Lesson Study/research teams. Questions were conversational in nature and open-ended with the intent of encouraging conversation and openness. Beginning with the first team, the original group of volunteers, they mentioned the awareness they gained of the necessity to consciously build a school wide common vocabulary for measurement. They also mentioned the need for students to explore measurement through cross-curricular, practical applications, i.e., constructing a chart to display character traits from a novel. Additionally, students needed opportunities to use different types of standard and non-standard measuring tools. At this point, after four years, the first volunteer team has a positive perspective on the Lesson Study model and how it works in their school. Additionally, one teacher mentioned the fact that there is no turnover of teachers on this campus. Teachers who work there seem to like it there and stay, partly due to the interaction between teachers and increased professionalism.

The third grade team of teachers mentioned the need for a common vocabulary also, but across grade levels and disciplines. Of value to this team was the practice of going through an actual lesson experiencing it from the student perspective to anticipate learner responses. They recognized this need after the fact, when the students could not progress in a planned research lesson due to the fact that their schema was limited, so they could not complete the lesson successfully. These teachers also saw the need for math manipulatives to assist with a problem solving lesson format.

The pre-kindergarten and kindergarten team realized that when the students worked together they developed their own rules for meaning-making. The teachers noticed that the students with a strong vocabulary had more confidence and were more successful than their peers creating an awareness of the need from the instructional perspective to build on vocabulary, even at the age of emergent literacy. This team mentioned the impact of watching a research lesson in action, which had the benefit of making newly developed lessons even better.

**Discussion**

To verify the researchers’ understanding of how the Principals Action Research and Collaboration started, and to triangulate data, an interview was held with a District administrator responsible for professional development at the district level. Interestingly, she explained, when the original PARC’s met, Lesson Study was not one of the topics chosen to be examined until one principal with that particular interest asked his cluster director to consider it. As a result, the Lesson Study Model PARC was begun by the principal who had wanted to try it on his campus.

As a result of the examination of the most current year’s state assessment data, it became obvious that an extended view of state assessment data was necessary in order to have a more complete picture of the possible impact on state standardized assessment scores in School 1, therefore, Figure 2 contains a longitudinal comparison with three years of data in order to examine the state assessment results more completely. Even so, the most recent state assessment data for 2011 is necessary along with a conversation with the teachers and principal of School 1 before any substantive observations can be made about the possible impact of the Lesson Study Model of teaching on standardized assessment results. Initially, this most immediate data demonstrates that writing and science are the only subjects below ninety percent. These numbers are indicative of the percentage of students on the School 1 campus who passed this subject area test in this year. Even though there is fluctuation within the scores in Figure 2, one must remember that from year to year, the students who are testing are not the same group of students. The real way to examine longitudinal data would be to track a particular class of students as they progress through the grades and take the state assessment. So, as the Lesson Study model becomes part of the school culture over time, a researcher, teachers, and principals could track a group of students from when they enter the school, experience Lesson Study in practice and are assessed multiple times until they leave the school. This would more likely depict the impact of Lesson Study methods on student learning.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Reading | Math | Writing | Science |
| 2007-2008 | 90 | 94 | 91 | 94 |
| 2008-2009 | 97 | 97 | 99 | 93 |
| 2009-2010 | 95 | 92 | 85 | 85 |

**Figure 2: Extended Assessment Data: School 1**

(all numbers are percentages)

But how did this all start at School 1? After interviewing the principal and attending PARC meetings, typically, an administrator interested in adopting the Lesson Study Model would introduce the process through videos and an introductory professional development experience and then would ask for volunteers willing to try it. The administrator of School 1 led the first research lesson on his campus and then stepped back to facilitate the next one led by the teaching team. The second year, there was an air of excitement by other teachers who had seen the impact of Lesson Study on teachers and students and wanted to participate, so this same principal split the first team to lead the other teams. The whole school has done this for three years at this time. There were skeptics. One teacher on this campus in particular, came from a business background and said she could not see how Lesson Study could work, but admitted to the fact that her mind changed as a result of her willingness to give it a try.

All teacher teams interviewed mentioned the impact of the Lesson Study Model as a method to conduct action research with the intent to improve teaching practices based on the findings. This aligns with Lewis’s (2002) observation that the end result is to improve the learning experience. In the process of observing a research lesson, observing teachers are assigned particular research responsibilities. One teacher watches social interaction of the students during the lesson. Another teacher monitors for academic awareness of students and another teacher observes for engagement with the lesson. All these perspectives are presented and discussed after the research lesson and provide an awareness that was lacking beforehand. Typically, teachers are involved in teaching a lesson and are not able to pay close attention to each of these factors in addition to teaching. Several teachers commented on how being the first to teach a research lesson was intimidating because of those other teachers in the room, however, once they met after the lesson and were able to discuss what was observed and to modify the next planned research lesson, the teachers felt less intimidated, more a part of a collaborative effort focused on improving the teaching and learning experience for students.

Clearly, the teachers articulated the feeling of being treated as equals, as professionals. This was important to them. Comments made from teachers in School 1 repeatedly supported the impact of reflection on teaching (Loucks-Horsley, et.al.,1987). Teachers saw in the students an increased understanding about the process of learning versus the search for the “right” answer and when teachers wanted to try something new, they had planned and studied so well that they could support their efforts and were encouraged by the principal in School 1 to take risks. This included less emphasis on the state standardized testing results and required communication efforts focused toward parents. The School 1 community of parents had even more questions for the teachers about the changes in teaching and learning occurring than school administrators. This was expected and teachers spent the time explaining. Also, public research lessons provided that additional depth to understanding changes in the school culture. These same teachers, when visiting their peers across the district, mentioned the comments made by those peers about wishing to participate in such an exciting teaching environment as theirs. When experienced teachers were asked how they felt about teaching as compared to when they first started teaching many years ago, they overwhelmingly expressed that it was more fulfilling to teach using the Lesson Study model and the influence of the experience had changed daily practice. In fact, low teacher turnover was attributed to the job satisfaction and the Lesson Study model of teaching with the closeness it engendered amongst teachers and administrators; this aligns with the critical cultural change mentioned by Stigler and Hiebert (2009). Clearly, the learning community (Dufour, 1997) fostered by the practice of research lessons impacts a school for the long term and in so doing, has the potential to impact students positively.

When asked what the students who have experienced this kind of learning environment for an extended period of time will do when they move into the middle school, one teacher said, “Well, I guess the kids will teach them [the middle school teachers] how to teach. The kids will be leaving with high expectations and questions about what they are learning.” This speaks to the necessity of continuing the Lesson Study method of teaching as part of a professional development approach that builds on the strengths of teachers and students vertically and to other schools. Gusky (1997) and Loucks-Horsely, et.al.(1987) addressed the necessity of professional development as part of a continuous process versus the traditional, typically meaningless sit-and-get formats previously practiced across the nation. One teacher commented, “Lesson Study is only a small piece of who we are – a way to launch us into other areas of growth. It has brought awareness to us – the spark to light the fires of other things.” With this kind of attitude, cultural change will not be temporary, but more long-lasting and effective for schools.

**Limitations**

As a researcher, just beginning this process, I am aware that it takes multiple interviews to facilitate the real meaning making of situations. As the year progresses with multiple opportunities to interact on the school campus, more data will be collected providing increased goodness and reliability (Yin, 1994).

As an experienced principal, this researcher must maintain an awareness to prevent previous professional experiences from intruding upon the collection of data, perceptions and meaning making in this research study. Even so, there is value to the researcher’s thinking that is primary to the study according to Moustakas (1994). Additionally, having experience as a school principal, this researcher understands the school system in a way that a different researcher, minus that experience, might not.

Another limitation is the examination of only one school implementing the Lesson Study model after a four year start. Therefore, the addition of another school to the study, one that has plans to begin using the Lesson Study model in the 2011-2012 school year could lessen this limitation and possibly allow for comparisons between the two schools. Figure three provides the data for comparison between the two schools; School 1, with four years using the Lesson Study model and School 2, beginning the Lesson Study model in the 2011-2012 school year. An advance analysis shows distinct demographic differences between the two schools and the second school is half again as large as the first school. Student population numbers from 2010 are listed with the District and both schools.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | AA | Hisp. | White | Nat.  Am. | As. Pac. | Econ. Dis. | LEP | At Risk | Reading | Math | Writing | Science |
| District (student population 31,843) | 10 | 33.9 | 52.9 | .1 | 3.2 | 64.9 | 12.6 | 45.7 | 90 | 85 | 92 | 84 |
| School 1 (student population 400) | 2.5 | 17.5 | 79 | .3 | .8 | 42.5 | 1.8 | 34.3 | 95 | 92 | 85 | 85 |
| School 2 (student population 604) | 6 | 79.6 | 13.1 | .2 | 1.2 | 95 | 44.2 | 68 | 86 | 97 | 92 | 84 |

**Figure 3: 2011-2012 School comparisons** (based on 2010-2011 data)

(All numbers are percentages)

**Recommendations**

The objective of conducting this research was threefold: 1) to share the impact of the Lesson Study practice in the school district observed over time; 2) to solicit the way in which a school administrator facilitates change to the Lesson Study Model; and 3) to describe the partnership between the university researcher and the school district implementing the Lesson Study format that enabled the study.

This initial endeavor has demonstrated the change in teacher practice on the School 1 campus and it will be interesting to observe over the next year how those changes may continue or diverge onto another path. With Differentiated Instruction being implemented in this large district next year, it will be interesting to observe how Lesson Study methodology interacts with that initiative. School 1 has been practicing the Lesson Study methodology for four years and each year, it has changed in some way. It has gone from a principal and volunteer led experience to a whole school teacher led venture and along the way has seemed to empower the teachers to take risks they might not have taken before now. It is expected that this research will continue on School 1 to monitor the continued evolution of the Lesson Study model and collaborative relationship between teachers and administration. Additionally, as more schools adopt the Lesson Study Model as an instructional practice, in particular, School 2, new opportunities to observe another administrator facilitate change with the end goal of improving teaching and learning will occur for this researcher. It is possible that comparisons can be made between the two schools, or not. However, if evidence demonstrates student success as measured by the state standardized assessment, more schools might adopt the Lesson Study Method of teaching. This researcher will be looking for the data as evidence of success for teachers and students.

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