Teacher Empowerment and Collaboration
Enhances Student Engagement
In Data-Driven Environments

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ABSTRACT

At the onset of the 21st century, education faces a crisis in our data-driven environments. Teachers feel limited by the adopted scripted curriculum designed to raise test scores, because it is not adequately engaging students. However, educational research in the US and in other countries indicates that teacher collaboration with administrative support can enhance lessons for more effective student engagement and deeper learning while raising test scores. The purpose of this study is to explore this and identify ways teachers can find their voices, value what they bring to the profession, and offer leadership within their schools. Teachers at public schools participated in an on-line survey, and several participated in additional interviews. They were asked about their experiences in adapting state adopted curriculum to enhance the engagement of their elementary school students. Results indicated that schools can succeed in student success by facilitating teacher empowerment through collaboration.
CHAPTER 1 INTRODUCTION

The accountability pendulum seems to be peaking and in the midst of this controlled environment teachers locally and across the country are expressing frustration with NCLB, the No Child Left Behind Act, by pondering the following ideas:

*Our accountability standards are not interested in measuring deeper learning or student engagement.*

*Administrators seem singularly focused on closing the gap to comply with NCLB accountability measures and are not providing time to discuss other important issues we (teachers) face in our classrooms.*

*I feel shut-down at meetings when I bring up curriculum concerns.*

*I feel I am becoming unskilled using this state-adopted, scripted curriculum.*

*I just close my door and teach the way I think is best.*

*There is not enough time for collaboration and brainstorming with other staff members.*

*There are outside trainings I’d like to attend, but all funding has been frozen for travel and training.*

*What are other countries doing that are succeeding better than we are in the US?*

*What can I do I am just a teacher?*

This thesis examines the current situation that, although there is pervasive frustration with NCLB expectations and limitations, teachers can consider making valid changes. Teachers can employ their own leadership movement and collaborate within their schools with each other and administrators on addressing student engagement and other educational issues to improve our educational system.
Statement of Problem

How can teachers successfully find best practices to design classroom lessons and adapt curriculum that engages their students and also contributes to the growth of the school’s overall test results? The answers will be found in leadership and collaboration.

Purpose

The purpose of the research is to recognize that public school teachers feel there is an absence of teacher voice in school curriculum design and delivery that has become even more pronounced since the passage of the No Child Left Behind Act of 2001. This study explores this disempowerment and offers ways that teachers can find their voices and appreciate the value of their pedagogical training and experience that they bring to their profession as leaders. Teachers were surveyed and interviewed about their desire, ability, and freedom to adapt state adopted curriculum to enhance the engagement of their elementary school students and ways in which they can collaborate to share best practices.

Research Question

Do teachers adapt state adopted curriculum and enhance it for better student engagement? How can this be more effectively accomplished? What are some ways to develop teacher leadership while enhancing student engagement through peer collaboration?

State adopted curriculum, like those common in California, have texts aligned with state standards in order to better prepare students for successful test taking intended to target federal NCLB proficiency levels. Student engagement can be described as “active involvement, commitment, and concentrated attention, in contrast to superficial participation, apathy or lack of interest” (Joselowsky, 2007, pg. 258). The often scripted texts, when followed with fidelity by
the teacher, rarely engage students without some adaption on the instructor’s part where he or she puts to use his or her pedagogical knowledge to meet the needs of the differentiated students. Student engagement can be increases when teachers have opportunities for teacher collaboration within schools. (Eisenman, Hill, Bailey, & Dickison, 2003). Research conducted by the National Academy Foundation (NAF) reported that teachers engaged in collaborative work fostered improved teacher effectiveness and instructional coherence (Orr, 2005). Teachers that work together and embraced a transactional approach to staff development promoted student engagement and achievement. Meaningful and lasting change can be fostered through collaboration (Shosh & Zales, 2005).
THEORETICAL RATIONALE

Data Driven Testing Culture

NCLB Accountability

A stated goal of No Child Left Behind, a federal policy instituted under George W. Bush in 2001, is “meeting the educational needs of low-achieving children in our Nation’s highest-poverty schools, limited English proficient children, migratory children, children with disabilities, Indian children, neglected or delinquent children, and young children in need of reading assistance”(No Child Left Behind Act of 2001, Public Law 107-110, 107th Cong., 1st Sess. (January 8, 2002): Codified at U.S. Code Title 20 Sec. 6301 Et. Seq. 2002). NCLB mandates a schedule and reporting procedures for high-stake testing and academic standards. The NCLB act culminates twenty years of political advocacy by Democrats and Republicans of standards and tests as a method to boost America’s competition in world markets (Spring, 2005).

With the adoption of standard based assessments in 1995 in California and nationwide NCLB in 2001, public schools have become data-driven environments. Their performances are assessed through standardized testing of all students in grades 3 through 8, with sanctions placed on schools judged to be inadequate (Levitt, 2008). Through standardized tests, the state government verifies that progress towards national literacy requirements has been made and confirms that schools have met their mandated Adequate Yearly Progress (AYP) the required growth numbers (NEA, 2008). Within that environment, most districts have purchased curriculums and texts aligned with standards in order to better prepare students for successful test taking.
These fundamental changes have had a wide variety of impacts on the educational community. This study explores how the data-driven environment affects teacher empowerment and student engagement. Is a teacher’s ability, freedom, and encouragement to design classroom lessons and adapt curriculum that engages his or her students limited by administration’s need to report growth in the schools overall test results? Roberta Levitt (2008) explains the impact of the passage of NCLB with:

Many believe that this required standardized testing is changing the environment of schools and siphoning off time for instruction and enrichment. Instead of inquiring or innovating, children are spending classroom time preparing for the test. Consequently, it is possible to hinder education by considering it only a transmission of knowledge and evaluating all students based on a single standardized test. This leads to the question: Is the purpose of school to encourage learning and creativity? (p. 50).

Despite its goal of improving education, the No Child Left Behind Act of 2001 is a controversial policy with potential negative ramifications. “To what avail is it to win prescribed amounts of information about geography and history, to win the ability to read and write, if in the process the individual loses his soul?” questioned Dewey in 1938 (Dewey, 1997, pg 49). Even though this quote is 70 years old, Dewey could have been addressing NCLB in 2009.

Currently, fifty percent of new teachers leave the profession within five years (NEA, 2008). Could it be they have lost their soul, as Dewey warns? Long before NCLB, the question (Goodlad, 1983) was already being asked, “Boredom is a disease of epidemic proportions… why are our schools not places of joy?” (p. 242). With additional challenges of standardized test-based curriculum and NCLB, we need to explore ways to enhance empowerment of teachers in
their quest to engage students in lessons that inspire lifelong learning, as well as evaluate literacy and math skills for proficiency.

**Limitations of Tests as Singular Assessments**

Policy makers should monitor high stake testing for both intended and unintended consequences and effects on student engagement (National Research Council Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004). The early ideals of access and equity included in NCLB are ones that educators clearly support, yet implementation has led to a narrow definition of success and a punitive system that stifles innovation and real change and we will shortchange our student's futures by defining achievement as a single score on an annual reading and math test (Rush, December 11, 2008).

Recently, Washington State educators expressed concerns about the NCLB testing and measurement procedures. Their statement echoes what many educators across the country acknowledge, “We're at an important crossroads to revisit programs [and assessments] and come up with more realistic expectations of students, and certainly a better way of measuring progress in learning” (Yakima Herald-Republic editorial board, Dec. 16, 2008). Even other countries have experienced the over reliance and simplistic emphasis on data, in New Zealand reports revealed that teachers were spending more time and energy in using assessment information for reporting rather than learning purposes (Haigh & Dixon, 2007). Educators should not denounce data, but they need to understand that data-driven decision making does not simply require good data; it also requires good decisions (Hess, 2009).
Can Teachers be Part of Change?

Policy Analysis for California Education (PACE) states that teachers need to revisit NCLB and prepare to demand changes (Maclay, 2008) under the new administration in 2009. Teachers need to understand that they can become leaders in accountability by using the process of observation, reflection, synthesis, and replication of effective teaching practices (Reeves, 2004). In other words, teachers should have time to conduct their own classroom research by observing each other, analyze results together afterwards, and thusly develop more effective and engaging lessons differentiated and designed for their specific student body.

Research shows that teacher effectiveness is the school-related factor most likely to affect student achievement. Schools and districts that invest in professional development to build instructional and leadership capacity can improve student achievement. The key is investing in sustained, high-quality professional development that emphasizes collaborative learning and classroom application and takes into account student outcomes (Rush, 2008).

Currently, fifty percent of new teachers leave the profession within five years (NEA, 2008). In order to retain the professional talent school districts work hard to groom, professional development must provide educators with tools they need to remain and improve their profession rather than leave their teaching careers.

Collaboration Success in Other Countries

Recent studies show that other nations in the developed world have more effective education systems. Education in Finland, Australia, Belgium, Austria, Hungary, Netherlands and the United Kingdom all out score the United States. In addition, the Asian nations of South Korea, Japan and Singapore ranked first through third, respectively. Why isn’t the United States
in the top ten nations when it comes to international education rankings? The US has much to offer from its research on child development to instructional innovations, but we must keep in mind “that success will go to the countries that are swift to adapt, slow to complain, and open to change” (Schleicher & Stewart, October 2008, pg. 51).

Finland is the world’s number-one performer in math and science. It boasts some of the narrowest achievement gaps in the world. Finland has a largely local curriculum and virtually no standardized testing. Highly qualified teachers create curriculum together for their local students and dedicate almost half their time to curriculum development and planning as a group (Gruver, 2009). Singapore urges its educators to “Teach Less, Learn More” and mandates that all teachers must have at least 10 percent of their time free to come up with independent lessons designed to enhance student motivation and creativity. Japan’s approach to collaboration is the lesson study process which is an affirmation of reflective practice and builds strength of colleagueship (Jalongo, 2003). Researchers report that one of the important components of these successful countries is a “lively learning community in which teachers learn and improve together in cultures of collaboration, trust, and responsibility” (Hargreaves & Shirley, October 2008, pg. 60).

Current Examples of Collaboration Efforts in the US

“All waste is due to isolation,” Dewey explains in a discussion on waste in US education almost a century ago. “Organization is nothing but getting things into connection with one another, so that they work easily, flexibly, and fully.” (Dewey, 1920, pg. 60)

A current example of getting teachers ‘into connection with one another’ was in February 2009, an Arizona school district designed an exchange of best practices amongst 2,000 teachers in 60 breakout sessions where teachers chose their own area of interest ranging from engaging
learners to curriculum design as well as other activities and conducted workshops for each other. This collaborative effort sought solutions and drives improvement among teachers, principals, and staff. Presenters covered a range of topics from addressing the needs of at-risk groups, as well as, working on getting more students enrolled in AP high school courses. (Roller, 2009)

Another example is in Texas, where some reformers are looking at Finland's education system to gather ideas for improving school-quality. Finnish 15-year olds are consistently near the top of international tests. Finland’s educators get positive results from all of its schools and nearly all of its students -- an equality that has been a chronic problem in Texas since the days of racial segregation. Even though Finland’s population is much different, the country's struggle to improve education offers ideas for success and includes establishing a single, straightforward curriculum for all schools as well as giving “well-trained teachers respect and freedom to teach.” Teaching in Finland is a true profession. It’s honored and highly regarded and teachers have considerable autonomy in the classroom (Landers, 2009).

Another methodology, used in Japan for the last century, is called Lesson Study where teachers jointly plan, observe, analyze, and refine classroom lessons together (Bogner, 2008). A group of teachers in Wisconsin used the method to observe and takes notes while one teacher delivers a lesson to a class. Then they come together to analyze results including student engagement. Members in the study said that they had reflected on issues that will make them better teachers and all members were willing to continue work after the initial study on research lessons using the Lesson Study model. This concept is also being used in Long Island, New York with great success by combining the strategy of lesson study with the principles of Sheltered Instruction to improve instruction for ELLs in mainstream classrooms (Honigsfeld & Cohan, 2008). Another example, is in Fort Wayne, Indiana where seventy-five percent of the schools
operate collaboratively and although some teachers feel it takes too much time, most teachers believe it helps them teach more effectively (Jehlin, 2009). And lastly, here, in Marin County, California many schools are participating in Professional Learning Communities (PLCs) where grade level teams meet formally to discuss and meet the challenges presented by the data they collect in a formal process (DuFour, 2004).

In conclusion, there are many examples of successful collaboration methods being used internationally, within the United States, and locally in California, although research shows that it is in its infancy in many places. Where successful, members of high-performing collaboration teams are held mutually accountable and it is a powerful structure for promoting individual and collective accountability which can serve the goals of administrators, school boards, and of course develop more competent teachers all lending to improved student achievement (DuFour & Marzano, 2009).
Assumptions

A significant number of teachers both new and experienced are frustrated and disempowered working with current state-adopted curriculum intended to teach to the standards and prepare students for test-taking. This curriculum is designed to support NCLB goals and highly scripted that teachers have lost the power to adapt lessons so they can do what they know to be best practices. These scripted, direct-instruction curriculums often leave students bored and disengaged and therefore less involved with their learning (Fishman & McCarthy, 2000).

In 2007, the American Federation of Teachers (AFT) ran a survey that revealed “the overwhelming majority of respondents were extremely critical of NCLB, giving the law a grade of ‘D’ or ‘F’” (AFT, American Federation of Teachers, 2008, para. 3). AFT responded by launching a national campaign titled “NCLB-Let’s Get it Right” to encourage teachers to participate in dialogue to improve America’s schools for students and teachers. The NEA, National Educators Association website posted goals to revise NCLB also, stating, “The current version of ESEA-the No Child Left Behind Act (NCLB)-is fundamentally flawed” (NEA, 2008, para. 1). Neither site, reports any recent progress in teachers’ voices being heard.

Based on these assumptions and observations, the final question here asks; Are teachers just too compliant, following the advice of outside experts, instead of creating their agendas? “Teachers may start out fighting the system, but it is much easier to settle down into conventional ways of teaching” (Goodlad, 1983, pg. 8), or do they want and need more guidance on reaching the educational policymakers? Parker Palmer in his book Courage to Teach (2007) calls this ‘risk-averse conservatism’ where teachers will not stray from mandated curriculum that ‘works’—even when it clearly does not. NEA suggests that teachers need to request that we
prepare all students for the future with 21st century skills and create enthusiasm for learning and engage all students in the classroom (NEA, 2008).

As repeatedly established, for all its positive gains in establishing accountability, NCLB’s has damaged morale for many teachers. The following quote from a recent interview exemplifies the futility currently felt by many educators:

After twenty years of teaching I can easily say NCLB is destroying education. I used to spend hours creating my own lessons and finding different ways of reaching very different kids. I taught other teachers up and down the state. I loved what I did. Now NCLB has me doing so much paperwork I can't even keep up. Forget about the lessons I used to write... I used to love my job and considered myself fortunate to do what I do. Now, like so many others, I am just overwhelmed (Burditt, December 2008).

Ultimately, teachers need to be empowered to act on incremental changes, as well as fundamental changes, in their classrooms and in the educational system to bring about meaningful and sustained change.

Background and Need

As previously stated, half of all new teachers leave the profession within the first five years (NEA, 2008). Are they leaving because of disempowerment? Research suggests yes. Farrell and Weitman (2007) defines teacher empowerment as being “comprised of three interrelated components: increased teacher access to decision making, increased teacher knowledge, and increased teacher status” (p. 37).

Teachers that are respected as knowledgeable decision makers are empowered to make decisions and are therefore more satisfied with their profession (Farrell & Weitman, 2007). Such
teachers are more likely to thrive and stay in teaching. “If we want to attract and retain intelligent, passionate, caring teachers, we had better figure out what will sustain their vitality and faith in teaching”. A “teacher’s belief in being able to make a difference in her students’ lives is more easily attained when teachers are empowered…. (2007, p. 40).

Roberta Levitt’s (2008) says “. . . to encourage learning, schools should focus their attention and discussion on children” (p. 50). She further explains that an agenda in education must respect students’ cultures and interests. Teachers need to be able to search for the particular strategies that best meet the needs of each classroom and of each student, and adapt instruction and content to respond to these students (Levitt, 2008). In addition, Levitt also points out that “teachers’ professional roles are devalued by controls imposed by administration and standards and testing” (p. 51). These controls result in both teachers and administrators fearing that poor test scores will damage their careers (Spring, 2005).

In summary, there is a need to further explore the empowerment of teachers to engage their students while teaching within the NCLB data-driven environment of the 21st century and to look for solutions (Farrell & Weitman, 2007; Levitt, 2008). The following research literature discusses tools and reasons to address teacher satisfaction, student engagement, and enhancing professional development through collaboration.
CHAPTER 2 REVIEW OF THE LITERATURE

The following review reveals that most of the current curriculum that is designed to teach standards and raise test scores is inadequate. Test driven curriculum does not engage students of its own accord; however teachers feel more and more limits on their freedom and empowerment to adapt curriculum to meet their students’ differentiated needs and further to enhance their students’ interests in developing a lifelong love of learning. Also, research has shown that quality professional development is essential. Teachers need time to share and collaborate with each other and co-develop best practices. This is essential for keeping educators growing as professionals and satisfied in their work, thus reducing turnover. Ultimately, teachers need to be encouraged to take part in leadership and capacity building within their school systems.

State Adopted Curriculum is Insufficient

Over 100 years ago Dewey (1920) described that the child will be actively engaged in material is relevant to him or her, but that “a traditional education stresses that children are presented with ready-made material and is almost exclusively held responsible for reciting this ready-made material” (p. 151).

NCLB has ushered in an unprecedented era of teaching to the test where “teachers and administrators accept a daily regime of following scripted lessons and teaching to standardized tests” (Levitt, 2008, p. 51). To address the resulting loss of empowerment for teachers (see Assumptions), I take a closer look at the limits imposed by the state-adopted curriculum. Part of the NCLB agenda was deliberately intended to strip teaching of creative acts and some teachers were even told that creating curriculum was not their job, their job was to deliver curriculum. In 2002, Susan Neuman, The US Secretary of Education when NCLB was passed, said that if the
new NCLB act is implemented correctly it “will put an end to creative and experimental teaching methods in our nations’ classrooms… our children are not laboratory rats” (Spring, 2005) (p. 37). Because of such restriction on their creativity, teachers often go underground with their teaching and are not allowed to share or celebrate what they are doing (Spring, 2005).

In order to standardize teaching methodologies, one of the most common standards based curriculums requires the teacher to read from a script. This curriculum is touted as a research-based method to boost standardized test scores and close the achievement gap (Ede, 2006). However, there is even conflicting research on the effectiveness of Direct Instruction (DI). DI appears to be neither a necessary nor sufficient condition for robust acquisition or for maintenance over time (Dean & Kuhn, 2007). Taylor reports that tests scores could be higher if better teaching methods were employed. Students are not engaged with DI and relatively few stimulating discussions took place in the classrooms when scripted programs were implemented by teachers (Stewart, 2003). Research has concluded that even though “gains have been made in statutory tests, they are not enough to justify the neglect of the fact that better teaching methods could produce higher gains” (Wyse, 2003).

NCLB pressure to have students reach proficiency has led to…, “too many teachers are teaching to the test, following a daily repetitive testing script using publishers’ assessment tools or teacher-constructed practice materials” (Kozol, 2005). In contrast, the Benchmark school study looked at an effective, highly successful school for at-risk students where teachers are retained in part for motivating and engaging students and where most of the curriculum was developed over the past 35 years by the teaching staff with research based resources. Researchers were surprised to learn that this staff had
no complaints about the school administration or leadership style. Teachers were satisfied and successful in their work at Benchmark where they had high levels of collaboration and innovation, as well as student achievement (Pressley, Graham, & Harris, 2006).

Benefits of Student Engagement

Successful student engagement results in improved attendance, relationships with teachers, and levels of social competence. For students who have the opportunity to go to school, one of the biggest challenges facing educators the world over is keeping those students engaged in school. Although money helps, effective dropout prevention requires creative energy, determination, and a pinch of risk taking. The right attitude and the right programs can turn lives around for the benefit of the young people themselves, their schools, and their communities. In documenting the current shortcomings of NCLB and state accountability measures, PACE (2008) recommends that California adopts “an engagement index (that) can point to where connections to school are breaking down, creating early warning signal for future schooling problems and providing specific data for schools to act on” (PACE, Policy Analysis for California Education, 2008).

Student engagement can be increased with more opportunities for teacher collaboration within schools (Eisenman et al., 2003). Research conducted by the National Academy Foundation (NAF) reported that teachers engaged in collaborative work fostered improved teacher effectiveness and instructional coherence (Orr, 2005). Teachers that work together and embrace a transactional approach to staff development promoted student engagement and achievement. Meaningful and lasting change was fostered through collaboration (Shosh & Zales, 2005). Case studies have further documented that teachers that plan lessons together have an
impact on student engagement in the classroom in ways they had not realized were possible (Puchner & Taylor, 2006). Further research indicates that professional development paired with on-site coaching and teacher collaboration improves literacy instruction. Almost 80% of the teachers in this study indicated that increased networking and collaboration appeared to be the decisive factor in overcoming teacher and student resistance, increasing engagement in literacy instruction, and increasing literacy skill transfer across content areas (Chambers Cantrell, David Burns, & Callaway, 2009).

It is not the job of classroom teachers to entertain students, but it is their job to engage students. The importance of engagement to academic achievement has been researched at length and studies consistently indicate a thirty percent gain in achievement when students are engaged (Marzano, 2007). There are many definitions of engagement. One interpretation is “the student’s psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote” (National Research Council Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004). The following definition of engagement could be used to describe students as well as teachers’ professional engagement, “active involvement, commitment, and concentrated attention, in contrast to superficial participation, apathy or lack of interest” (Joselowsky, 2007).

The antithesis of engaged learners are compliant students. Compliant learners typically restrict themselves to the questions being asked and dutifully complete only the teacher’s assignment list. Engaged learners will ask additional questions, read text for content knowledge as well as connections, and evaluate the validity of sources. Compliant learners can become bored and boredom depresses performance. Educators need to recognize that some classroom rules encourage ‘neat’ compliant behavior instead of the messiness of engagement (Zmuda,
November 2008). Educators need to reflect on engagement because it creates joy, tolerance, and fascination and is often found in unexpected moments that scripted curriculum does not accommodate. “Engagement is a habit of mind and heart” that helps us chart a course for life beyond the school walls (Joselowsky, 2007).

Value of Professional Development

Professional development is one of the most important elements of successful schools. “Schools that meet teachers’ needs for resources, professional development, and collegiality” have teachers that are more caring and effective that ultimately promotes students’ confidence leading to high levels of effort and persistence. (National Research Council Committee on Increasing High School Students' Engagement and Motivation to Learn, 2004)

Collegiality and collaboration appear to be an essential part of the success in professional development. One study in 2005 found that when writing “teachers embraced a transactional approach to staff development in which teachers support collegial learning about teaching that promotes student engagement and achievement. Meaningful and lasting change was fostered through collaboration to conduct classroom action research” (Shosh & Zales, 2005).

Principals that promote teacher learning in collaborative teams are far more likely to improve student achievement than by focusing on formal teacher evaluation. Teams that work together for the common goal of raising student achievement have a powerful structure for promoting individual and collective accountability. Principals that devote less time to teacher supervision and more time to collaborative teamwork are far more likely to fulfill their primary goal to help students achieve at higher levels (DuFour & Marzano, 2009).
Beyond the professional day-to-day obligation of a teacher’s job to collaboratively discuss test scores, plan scope and sequence of instruction, and select text books is also the need for personal renewal of teachers to continue to be the people that are supposed to excite young minds with knowledge. The human issues in teaching get ignored and we lack collegial conversation of much duration and depth (Palmer, 2007). It is never too late to begin the conversation that will open a door of professional collaboration (Bickmore, 2005). Reeves’ research has revealed that “Change spreads throughout a system on a nonlinear communication path of nodes, hubs, and superhubs.” Nodes are individuals, hubs hold department titles, and, in a school, the superhubs do not necessarily hold administrative titles, but they are those to whom colleagues come for advice. Reeves suggests that School leaders should harness the power of networks by listening to their key members and give up the pure notion that curriculum and policy implementation is simply a top down process (D. B. Reeves, 2006).

Gallup found that “the majority of employees take their cues from a trusted colleague rather than from the boss, the employee manual, or a silver-tongued trainer” (D. B. Reeves, 2006). If employees, whether they are in education or not, prefer to follow the lead of fellow workers then we must examine the effectiveness of collaboration within the educational system.

Teacher Collaboration Models

Teacher designed research, teachers studying their own classrooms, confirmed that as working as collaborators will develop a cooperative community in which our individual differences become our common strength. “Despite the fact that classroom practice is often a lonely activity many teachers acknowledge—in the midst of their own isolation—that learning itself, paradoxically, is a social or communal process” (Fishman & McCarthy, 2000).
A recent survey of more than 300 teachers indicated that direct modeling by colleagues was the most powerful factor by far. Therefore, providing a safe environment to provide examples rather than policy mandates will help to determine best practices where teachers can both learn from and teach other. This process should establish boundaries, but not micromanage professional standards. When school leaders provide support and expect that professionalism means sharing best practices, the reward will be higher professional excellence by staff and students, and most importantly, improved practice (Reeves, 2009).

Parker Palmer, author of *The Courage to Teach*, advises educational policymakers to embrace “the importance of trust in the drive to deliver results” (pg. 164) research shows that schools reporting strong links to trust were three times more likely to report eventual improvements in scores than those where trust levels were low. The most thoughtful people at every level of education understand that we must transcend the artificial boundaries that separate us so we can collaborate in spirit and practice in order to serve students well (Palmer, 2007).

This literature review supports the goals of the following directed research. This study adds confirmation to the existing research that teachers understand that in order to effectively teach and reach accountability goals student engagement is essential. To find the best practices that engage their students and to grow as professionals, teachers seek out a multitude of resources from internet websites to the teacher next door to university courses. However, overwhelmingly, this study examines that the most essential component to teacher empowerment and student engagement and ultimately success in our schools, is through formal or informal peer collaboration.
CHAPTER 3 METHODS AND PROCEDURES

Sample and Site

Participants were a convenience sample of thirty-six public school teachers in a Northern California school district and two from private schools. The participants were volunteers who responded to an email invitation for an online survey conducted by a colleague (Cristy Pollak). The title of the survey indicated that (1) the study was on Curriculum and Student Engagement in Data-Driven Environments, (2) the teachers were not required to participate, and, (3) if they did participate they could withdraw from the survey at any time without penalty. The use of volunteers as participants in this study greatly restricts the generalizability of the results.

Sixty-eight percent of the participants have 4-15 years experience teaching and the remaining thirty-two percent have over 15 years experience. Twenty-six percent have been at their current school for 1-5 years, forty percent for 6-9 years, and thirty-four percent for over 10 years. The primary two schools with almost 1,000 students combined are in a suburban neighborhood which are composed predominantly (about eighty percent) of white, middle class students with about 10% of students qualifying for free and reduced lunch and about eighty percent of those do not meet proficient scores in Language Arts. The district uses state adopted curriculum in all subjects and 95% of the teachers agree that the school is data-driven with the use of assessment data used frequently or always used in driving the school’s decision making. Both schools in the district have been recognized as Distinguished California Schools and post high AYP scores and rate among the top five elementary schools of Sonoma County’s ninety schools, although there are still gaps that need to be addressed according to NLCB goals.
Access and Permissions

Participation in the survey was consent to use the answers and participants were instructed that their comments would be kept confidential. The survey stated this explicitly at the beginning of the questionnaire. Email invitations and reminders were sent to fifty-eight teachers in the same school district, a few other teacher contacts, and thirty-eight replied within the three week window the survey remained open on-line. Participants clicked on a link in the email and the survey opened and could only be submitted one time to each unique email address. The data is password protected by the author of this report and individual responses will only be released to Dominican University professors if necessary.

Ethical Standards

The survey questions had been previously approved by the school board where the majority of participants and I were employed. This study adheres to Ethical Standards in Human Subjects Research of the American Psychological Association (Publication Manual of the American Psychological Association, 2007). Additionally, the project was reviewed and approved by the Dominican University of California Institutional Review Board, IRBPHS Application, #7024.
Perceptions and attitude toward Curriculum and Student Engagement was measured with a questionnaire developed for use in this study. It was a fifteen question on-line survey using the commercial website service SurveyMonkey. After identifying the teaching experience with two questions, four questions measured the need for enhancement of state adopted curriculum for improved student engagement. Four more questions explore the use of over a dozen different resources teachers might use to find Best Practices. Two final questions asked participants what their preferences would be if they participated in peer collaboration sessions. Several face-to-face interviews and email discussions also lent guidance and some quotations to this paper. Confidentiality is protected through the use of password access to website collection data from survey. The complete questionnaire is shown in APPENDIX A of this journal article. In Appendix B are the cumulative results of the survey.

Data Analysis Approach

Descriptive statistics summarize the data collected in order to look for significance within this particular sample of teachers. A simple review of percentages of responses was used to determine the most frequent answers to each question. The assumption used here is that the more often this particular group of teachers selected an answer, the more weight that result should have when being considered in decision making within these particular schools. Upon review of the survey results in APPENDIX B readers can also observe that the top two answers in each multiple choice question is highlighted by asterisks (**). In the discussion that follows a narrative description of the significant findings can be reviewed.
CHAPTER 5 DISCUSSION

Summary of Major Findings

One of the most significant outcomes was that 100% of participants say they adapt or enhance the adopted, scripted texts and programs by applying one or more different teaching methods in order to enhance student engagement (question #6) and almost 90% frequently or always adapt or enhance the school’s adopted programs (question #7) and 100% find that student engagement is improved through their enhancements (question #8).

The second part of the survey explored ways in which this group of teachers learns and finds Best Practices. Participants were given thirteen choices and could pick all that apply. A clear first choice was formal and informal collaboration (question #9), together collaboration scored 84%. The next most popular method was district sponsored trainings at 76% and then personally designed lessons at 71%. Other popular resources were teacher manuals and other published books, followed by education websites and other trainings. The method with the lowest score was accessing the publisher’s website with only 26% looking into this source.

The survey then posed the same question but added that if funds for training were not limited (question #11) which resources would participants like to use the most, teachers still choose peer collaboration within contract hours 45% of the time second only to off-site trainings at 68%. Acknowledging the challenging economic times in the next question (#12), overwhelmingly 66% of teacher responses said most highly effective resource the district could provide for the lowest cost would be peer collaboration within contract hours. Finally, participants were asked that if time set aside for peer collaboration (question #13) how would they prefer to participate and a clear 87% said they would prefer to observe a peer teaching a
lesson to a class of students, and the second choice was to attend a session taught by a peer at 68%. When asked to consider leading a short session for peers (question #14), 100% replied they would be willing to conduct a session and the subject areas most likely to be presented resulted in the top four subjects: language arts, math, classroom management followed by science, but several other topics were offered also.

**Comparison of Findings/Results with Existing Studies**

All the teachers in this survey use state adopted curriculum and 100% of them agree that they usually or always adapt or enhance the curriculum to improve student engagement (question #8) because over half the time teacher perceives that the student’ engagement is fair to low when following the scripted text (question #5). This can be compared to the research results where students are not engaged with Direct Instruction and relatively few stimulating discussions took place in the classrooms when scripted programs were implemented by teachers (Stewart, 2003). Research has concluded that even though “gains have been made in statutory tests, they are not enough to justify the neglect of the fact that better teaching methods could produce higher gains” (Wyse, 2003, pg. 904).

The survey conducted for this study found that an overwhelming 87% of participants would prefer to observe a peer teach a lesson to a class of students (question #13). This mirrors the result of a recent survey led by Douglas Reeves at Harvard (2009) where more than 300 teachers indicated that direct modeling by colleagues was the most powerful factor by far in professional collaboration. He concluded that by creating a safe environment to provide examples rather than policy mandates will help to create a bank of best practices where teachers can both make deposits and withdrawals. It is also important to establish boundaries, but not to
micromanage professional standards. When school leaders provide support and expect that professionalism means sharing best practices, the reward will be higher professional excellence by staff and students, and most importantly, improved practice (Reeves, 2006).

This survey found that the participants were also 100% willing to lead a short session for their peers in several different topics (question #14) if collaboration within contract hours was established (question #11-12). This willingness to lend expertise and leadership to one’s colleagues is the type of commitment that can bring positive change through teacher leadership to our educational system. In order for schools to capitalize on this motivation and to take collaboration to the next level, schools must provide adequate planning and communication time. Reeves who has conducted extensive research in teacher leadership explains the risks and rewards for schools that embrace the strategy of using outstanding teachers to influence the practice of their peers explains:

When school leaders provide sufficient administrative support and authority, establishing the expectation that professionalism means sharing best practice, the rewards—higher standards of professional excellence, improved engagement by staff and students, and most of all, improved practice—far out-weigh the risks. (Reeves, 2004, pg. 86).

Limitations of the Study

The use of volunteers as participants in this study greatly restricts the generalizability of the results to other school districts. However, the results of this survey do reflect in general the results of other research studies cited throughout this report. The survey results are relevant if applied and put to use by the school district where the participants are employed. The answers in the survey represent the thoughts and opinions of 75% of this particular teaching staff. This
indicates a clear opportunity for the teaching staff to explore putting a formal collaboration model to work with the administration using this survey as the beginnings of the discussion.

Implications for Future Research

Other studies need to be conducted to learn more about the connection of student engagement with teachers that are in active collaborative staffs. However, there is plenty of evidence that “schools should not ignore the power of direct modeling by classroom teachers as the key to high-impact professional learning” (Reeves, 2009, pg. 85). Successful strategies vary and when schools embrace a strategy, they need to give it adequate planning time and a thorough means of communication. This survey can offer a simple approach/tool for school districts to understand their teachers better and initiate discussion towards choosing a collaborative strategy. With only a dozen or so questions accessed via email answered at the teacher’s convenience, administrators can see how current curriculum is being used and whether their teaching staff feels the need for a particular type of professional development in order to improve student engagement. Results of the survey can then become a guide for school districts to make choices on how best to use their teachers’ time outside the classroom. If the administration opens the results up for discussion and allows the staff to help develop plans for peer collaboration or whichever type of professional development they deem the most relevant and realistic there will be acceptance and most likely success will follow, led in part by the teachers themselves.

Overall Significance of the Study

The results from my study were very positive. As an elementary school teacher myself, I knew that my own colleagues were a reliable source. I could discuss the potential application of collaboration techniques and the possibilities of applying them to our school in the near future. I
have been informally and formally collaborating with these same teachers for a decade and have already seen anecdotally the positive effects of student engagement on our student learning outcomes result from some the collaborative efforts. Based on the results from the survey I believe that we (the teaching staff) can approach our school district and administration about furthering our current success with one of these collaboration models cited in this report.

This study confirms that educational success internationally and in this country has given teachers more leadership and control locally to consult each other and develop their pedagogical best practices that will improve student achievement through improved student engagement. This concept requires schools to develop multiple areas of instructional supports, primarily looking at collaboration methods. A combination of a strong professional community, deep principal leadership, and teacher influence will be necessary for schools to produce high student achievement. Developing multiple areas of schools’ organizational characteristics will require intentional and concerted efforts on the part of school leaders and school reformers. These efforts should lead to improved student achievement, and it will be time well spent (Stevens, 2008).

Parker Palmer writes about Learning in Community (2007) in his book *Courage to Teach*. He addresses leadership and calls upon policy makers and educators to consider the following:

Resources that could help us teach better are available from each other—if we could get access to them. However, good talk about good teaching is unlikely to happen if principals and others who have influence do not expect it and invite it into being. This kind of leadership involves seeing more in teachers than teachers sometimes see in themselves. Whether an educational leader is an administrator or a teacher, a successful leader opens spaces in which people feel invited to create
communities of mutual support healing the pain of disconnection from which many faculty suffer these days (Palmer, 2007, pg. 166).

Collectively for the achievement and success of students and teachers, let’s engage each other through collaboration and bring engagement and joy back into our classrooms.
REFERENCES

http://www.aft.org/fixnclb/survey_responses.htm

English Journal, 95(2), 35-40.

Bogner, L. (2008). Using lesson study as an instrument to find the mental models of teaching and learning 
held by career and technical education instructors. International Journal of Learning, 15(1; 1), 239-244.

Burditt, P. (December 2008). Interview about NCLB effects in the classroom email.

Chambers Cantrell, S., David Burns, L., & Callaway, P. (2009). Middle- and high-school content area 
teachers' perceptions about literacy teaching and learning. Literacy Research & Instruction, 48(1; 1), 
76-94. doi:10.1080/19388070802434899

Dean, D.,Jr, & Kuhn, D. (2007). Direct instruction vs. discovery: The long view. Science Education, 
91(3), 384-397.


Supervision and Curriculum Development, 66(no. 5), 62-63-68.


Survey

Teacher Survey on Curriculum and Student Engagement

1. Number of years you have been teaching?
2. Number of years you have been teaching at your current school?
3. Does your school currently use state adopted curriculum in most subjects?
   - Yes
   - No
4. To what extent are decisions at your school data-driven? In other words, what level do assessments drive your school’s decision making?
   - Low
   - Occasionally
   - Frequently
   - All the time
5. In your professional opinion, what is the level of student engagement you observe when you are following the adopted curriculum with fidelity (follow the teacher manual/script)?
   - Low
   - Fair
   - Good
   - Excellent
6. Do you adapt or enhance the adopted texts & programs by applying one or more different teaching methods in order to enhance student engagement and boost learning?
   - Yes,
   - No,
   - Not sure
7. How much do you adapt or enhance the school’s adopted programs?
   - Never
   - Occasionally
   - Frequently
   - Always
8. If you adapt or enhance the program, is student engagement improved?
   - Yes, almost always
   - Usually improved
   - No, not much difference
   - I do not adapt curriculum
   - Not Sure
9. What resources do you use to learn and find “Best Practices” in teaching methods? (check ALL that apply)
   - Program Teacher Manual
   - Publishers Web Site
   - District Sponsored Trainings
   - County (SCOE) Sponsored Trainings
   - Off-site Trainings or Conferences
   - Internet Education Sites
   - Teacher Magazines
   - Published Education Books
   - Attend College, University Classes
   - Professional Journals
   - Personally Designed Lesson Plans
   - Peer collaboration meetings (within contract hours)
   - Informal collaboration/discussions with colleagues
   - Other (please specify)

10. Using the same list, which are currently your most frequent resources? (check up to three choices)
   (Using same list from #9)

11. If time and money were not limited, what three resources would you like to have available more often?
   (check three choices) Using same list from #9

12. During these challenging economic times when funding for teacher training is under pressure, which resources would you say are the most highly effective for the lowest cost to the district?
   (check three choices) Using same list from #9

13. If more time was made available for peer collaboration and sharing of best practices, in which of the following activities would you prefer to participate
   (choose up to three)
   - Attend a peer taught session
   - Teach a session to my peers
   - Observe a peer teaching a lesson to a class of students
   - Contribute a page to a "Best Practices" Book once a year and receive a copy
   - other

14. If you were asked to lead a short session for your peers, in which of the following subject areas would your contribution most likely be? (select up to three)
   - Reading
   - Writing
   - Math
   - Science
   - Social Studies
   - PE
   - Time saving tips
   - Classroom management
   - None
   - Other (please specify)

15. Any additional comments on this survey are welcome:
APPENDIX B

Survey Results: February 2009

1. **Number of years you have been teaching?**
   - 1-3 years: 0%
   - 4-10 years: 34%
   - 10-15 years: 34%
   - 15-20 years: 13%
   - 20+ years: 19%
   - 100%

2. **Number of years at current school?**
   - 1-5 years: 27%
   - 6-15 years: 61%
   - 15+ years: 12%
   - 100%

3. **Does your school use state adopted curriculum in most subjects?**
   - Yes: 97%
   - No: 3%
   - 100%

4. **To what extent are decisions at your school data driven?**
   - Low/occasionally: 5%
   - Frequently: 34%
   - All the time: 61%
   - 100%
What is the level of student engagement you observe when following the adopted curriculum with fidelity?

<table>
<thead>
<tr>
<th>Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>26%</td>
</tr>
<tr>
<td>Fair</td>
<td>32%</td>
</tr>
<tr>
<td>Good</td>
<td>40%</td>
</tr>
<tr>
<td>Excellent</td>
<td>2%</td>
</tr>
</tbody>
</table>

100%

Do you adapt or enhance the adopted texts & programs by applying one or more different teaching methods in order to enhance student engagement and boost learning?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>100%</td>
</tr>
<tr>
<td>No</td>
<td>0%</td>
</tr>
</tbody>
</table>

100%

How much do you adapt or enhance the school’s adopted programs?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>0%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>11%</td>
</tr>
<tr>
<td>Frequently</td>
<td>60%</td>
</tr>
<tr>
<td>Always</td>
<td>29%</td>
</tr>
</tbody>
</table>

100%

If you adapt or enhance the program, is student engagement improved?

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, almost always</td>
<td>68%</td>
</tr>
<tr>
<td>Usually improved</td>
<td>32%</td>
</tr>
<tr>
<td>No</td>
<td>0%</td>
</tr>
<tr>
<td>I do not adapt</td>
<td>0%</td>
</tr>
</tbody>
</table>

100%
What resources do you use to learn and find “Best Practices” in teaching methods? (check ALL that apply)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Teacher Manual</td>
<td>66%</td>
</tr>
<tr>
<td>Publishers Web Site</td>
<td>26%</td>
</tr>
<tr>
<td>District Sponsored Trainings</td>
<td>76%</td>
</tr>
<tr>
<td>County (SCOE) Sponsored Trainings</td>
<td>55%</td>
</tr>
<tr>
<td>Off-site Trainings or Conferences</td>
<td>55%</td>
</tr>
<tr>
<td>Internet Education Sites</td>
<td>55%</td>
</tr>
<tr>
<td>Teacher Magazines</td>
<td>53%</td>
</tr>
<tr>
<td>Published Education Books</td>
<td>63%</td>
</tr>
<tr>
<td>Attend College, University Classes</td>
<td>37%</td>
</tr>
<tr>
<td>Professional Journals</td>
<td>34%</td>
</tr>
<tr>
<td>Personally Designed Lesson Plans</td>
<td>71%</td>
</tr>
<tr>
<td>Peer collaboration meetings(within contract hours)</td>
<td>84%</td>
</tr>
<tr>
<td>Informal collaboration/discussions with colleagues</td>
<td>84%</td>
</tr>
</tbody>
</table>

*** most frequent  ** next frequent

Which are currently your most frequent resources? (Using same list, check up to three choices)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Teacher Manual</td>
<td>50%</td>
</tr>
<tr>
<td>Publishers Web Site</td>
<td>3%</td>
</tr>
<tr>
<td>District Sponsored Trainings</td>
<td>26%</td>
</tr>
<tr>
<td>County (SCOE) Sponsored Trainings</td>
<td>13%</td>
</tr>
<tr>
<td>Off-site Trainings or Conferences</td>
<td>11%</td>
</tr>
<tr>
<td>Internet Education Sites</td>
<td>29%</td>
</tr>
<tr>
<td>Teacher Magazines</td>
<td>18%</td>
</tr>
<tr>
<td>Published Education Books</td>
<td>8%</td>
</tr>
<tr>
<td>Attend College, University Classes</td>
<td>16%</td>
</tr>
<tr>
<td>Professional Journals</td>
<td>8%</td>
</tr>
<tr>
<td>Personally Designed Lesson Plans</td>
<td>29%</td>
</tr>
<tr>
<td>Peer collaboration meetings(within contract hours)</td>
<td>32%</td>
</tr>
<tr>
<td>Informal collaboration/discussions with colleagues</td>
<td>50%</td>
</tr>
</tbody>
</table>

*** most frequent  ** next frequent
If time and money were not limited, what three resources would you like to have available more often?

(Using same list, check up to three choices)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Teacher Manual</td>
<td>0%</td>
</tr>
<tr>
<td>Publishers Web Site</td>
<td>3%</td>
</tr>
<tr>
<td>District Sponsored Trainings</td>
<td>34%</td>
</tr>
<tr>
<td>County (SCOE) Sponsored Trainings</td>
<td>37%</td>
</tr>
<tr>
<td>Off-site Trainings or Conferences</td>
<td>68%</td>
</tr>
<tr>
<td>Internet Education Sites</td>
<td>13%</td>
</tr>
<tr>
<td>Teacher Magazines</td>
<td>3%</td>
</tr>
<tr>
<td>Published Education Books</td>
<td>13%</td>
</tr>
<tr>
<td>Attend College, University Classes</td>
<td>40%</td>
</tr>
<tr>
<td>Professional Journals</td>
<td>5%</td>
</tr>
<tr>
<td>Personally Designed Lesson Plans</td>
<td>18%</td>
</tr>
<tr>
<td>Peer collaboration meetings(within contract hours)</td>
<td>45%</td>
</tr>
<tr>
<td>Informal collaboration/discussions with colleagues</td>
<td>21%</td>
</tr>
</tbody>
</table>

*** most frequent  ** next frequent

During these challenging economic times when funding for teacher training is under pressure, which resources would you say are the most highly effective for the lowest cost to the district?

(Using same list, check up to three choices)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Teacher Manual</td>
<td>21%</td>
</tr>
<tr>
<td>Publishers Web Site</td>
<td>16%</td>
</tr>
<tr>
<td>District Sponsored Trainings</td>
<td>16%</td>
</tr>
<tr>
<td>County (SCOE) Sponsored Trainings</td>
<td>21%</td>
</tr>
<tr>
<td>Off-site Trainings or Conferences</td>
<td>8%</td>
</tr>
<tr>
<td>Internet Education Sites</td>
<td>40%</td>
</tr>
<tr>
<td>Teacher Magazines</td>
<td>8%</td>
</tr>
<tr>
<td>Published Education Books</td>
<td>8%</td>
</tr>
<tr>
<td>Attend College, University Classes</td>
<td>19%</td>
</tr>
<tr>
<td>Professional Journals</td>
<td>5%</td>
</tr>
<tr>
<td>Personally Designed Lesson Plans</td>
<td>21%</td>
</tr>
<tr>
<td>Peer collaboration meetings(within contract hours)</td>
<td>66% ***</td>
</tr>
<tr>
<td>Informal collaboration/discussions with colleagues</td>
<td>53% **</td>
</tr>
</tbody>
</table>

*** most frequent  ** next frequent
If more time was made available for peer collaboration and sharing of best practices, in which of the following activities would you prefer to participate?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend a peer taught session</td>
<td>68%</td>
</tr>
<tr>
<td>Teach a session to my peers</td>
<td>29%</td>
</tr>
<tr>
<td>Observe a peer teaching a lesson to a class</td>
<td>87%</td>
</tr>
<tr>
<td>Contribute to a &quot;Best Practices&quot; Book once a year</td>
<td>32%</td>
</tr>
<tr>
<td>other</td>
<td>8%</td>
</tr>
</tbody>
</table>

** (next frequent)  *** (most frequent)

If you were asked to lead a short session for your peers, in which of the following subject areas would your contribution most likely be?

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>55%</td>
</tr>
<tr>
<td>Writing</td>
<td>37%</td>
</tr>
<tr>
<td>Math</td>
<td>47%</td>
</tr>
<tr>
<td>Science</td>
<td>29%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>11%</td>
</tr>
<tr>
<td>PE</td>
<td>13%</td>
</tr>
<tr>
<td>Time Saving Tips</td>
<td>11%</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>37%</td>
</tr>
</tbody>
</table>

** (next frequent)  *** (most frequent)

(100% willing to present)

<table>
<thead>
<tr>
<th>Other Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>0%</td>
</tr>
<tr>
<td>other</td>
<td>11%</td>
</tr>
</tbody>
</table>

*** (most frequent)  ** (next frequent)