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Implementation of Professional Learning Standards in Georgia Schools: An Examination of the Current Reality

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Abstract

Professional learning is considered important for improving teacher quality and for development of organizational capacity to boost school improvement for student learning. This mixed methodology study examines the implementation of the National Staff Development Council Standards (NSDC) in professional learning in Georgia schools through the NSDC Standards Assessment Instrument and six open-ended follow-up questions. The findings suggest that teachers in Georgia did not perceive that professional learning holds a high priority by their school leaders, state legislators, and key policy makers. However, they rated their effort toward context and content areas of professional learning to be above average.

Introduction

While teaching is the major responsibility of a teacher, learning plays an important role in the support of teaching. An old Chinese saying, 学如逆水行舟,不进则退 meaning "Studying is like rowing against the current, if you do not advance, you retreat" holds true that a teacher will become outdated with no continuous effort in learning. Teacher attitudes and beliefs as a result of successful practices need to be reinforced by meaningful follow-up training sessions to ensure that they stay in place (Guskey, 1985). Not only that, all teachers need to continue to learn, but also they need to learn together to become effective teachers to impact student learning. As Newmann and Wehlage (1995) put it, "If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activity, and collective responsibility among staff" (p. 37). The State of Georgia has adopted the professional learning community principles (Georgia Department of Education, 2008) specified by the National Staff Development Council Standards (NSDC, 2001). Based on this policy decision to implement professional learning in all schools in Georgia, it is essential to examine where the schools stand in implementing the NSDC Standards to promote the professional learning of their staff.

Conceptual Framework

Professional learning is a powerful tool to organizational improvement. Drucker (1992) stated, "Every enterprise has to become a learning institution and a teaching institution. Organizations that build in continuous learning in jobs will dominate the twenty-first century" (p. 108). Drucker's point of view was echoed by Covey, Merrill, and Merrill (1996), Handy (1995) and Senge (1990). An abundance of research in both business and education revealed that adults exposed to new ways of working need on-the-job support to establish new (Joyce & Calhoun, 1996; Joyce & Showers, 2002).

In school application, Schmoker (1999) strongly suggested that the use of professional learning communities was the best, least expensive, most professionally rewarding way to improve schools. Evidence showed that effective professional development needs to be seen as a regular, on-going part of school life. The remarks by Sparks (2005) pointed to the importance of professional learning to school improvement: "Well-implemented professional learning communities are a powerful means of seamlessly blending teaching and professional learning in ways that produce complex, intelligent behavior in all teachers" (p. 156). Hord (2008) simply concluded that "teacher quality is improved through continuous professional learning in the context of a professional learning community" (p. 10). Vescio, Ross, and Adams (2006) also added that "establishing a professional learning community contributes to a fundamental shift in the habits of mind that teachers brought to their daily work in the classroom" (p. 9).

"If schools want to enhance their organizational capacity to boost student learning, they should work on building a professional community that is characterized by shared purpose, collaborative activities, and collective responsibility among staff" (Newmann & Wehlage, 1995, p. 37). Darling-Hammond (1996), Koellner-Clark and Borko (2004), and Louis, Kruse, and Raywid (1996) are also among the strong supporters of forming a school-wide professional community to respect learning, to honor teaching, and to teach for understanding. Research studies in the last decade have supported professional development as having a powerful impact on teaching quality and student achievement. For example, Yoon, Duncan, Lee, Scarloss, and Shapley (2007) found that student achievement increased 21 percentile points in a single year when teachers had an average of 49 hours of professional development in a year when the focus was specifically on the curriculum they taught. Other researchers have found similar results (Garet, Birman, Porter, Desimone, & Herman, 1999; Cohen & Hill, 2001).

Addressing how to develop a professional learning community in schools, Fullan (1993) expressed his view by encouraging school staff to start dealing with change as a way of life. Joyce and Showers (1995) also warned that the development of a learning community of educators was itself a major cultural change. In addition, Reeves (2005) explicitly pointed out that "the framework of a professional learning community is inextricably linked to the effective integration of standards, assessment, and accountability" (pp. 47-48). When beginning teachers and experienced teachers work together on real problems of practice in learner-centered settings, they can begin to develop a collective knowledge base and a common set of understandings about practice (Darling-Hammond, 1996).

The role of school leaders in professional learning communities was described by Goldring, Porter, Murphy, Elliott, and Cravens (2007) as school leadership ensured integrated communities of professional practice in the service of student academic and social learning. Leaders of professional learning communities balance the desire of professional autonomy with the fundamental principles and values that drive collaboration and mutual accountability. Louis, Kruse, and Raywid (1996) expressed clearly that "The principal plays a critical role in the development of professional learning communities, forging the conditions that

give rise to the growth of learning communities in schools" (p. 19). The significant contributions of school leadership to professional learning communities were also recognized by Goodlad (1984), Smith and Andrews (1989), Saphier (2005), Alsbury and Hackmann (2006), and McLaughlin and Talbert (2006).

Goldring et al. (2007) illustrated the outcomes of school professional learning communities that were more likely to exhibit academic success as schools organized as communities, rather than bureaucracies. Allen and Blythe (2004) claimed that professional learning communities are most effective when formal protocols are established. Kruse, Louis, and Bryk (1994) also asserted that "a school-based professional community can offer support and motivation to teachers as they work to overcome the tight resources, isolation, time constraints and other obstacles they commonly encounter" (p. 4). Additionally, Hord (1997) detailed the evolution and the results of professional learning communities to teachers and students.

For continuous improvement of professional learning activities, Flecknoe (2002) stressed that assessment needed to be included in the professional development program to monitor and evaluate professional practices in schools. Garet, Porter, Desimone, Birman, and Yoon (2001) also expressed that assessment of professional learning activities could focus on form, duration, and collective participation to enhance knowledge and skills of teaching practices.

Significance of the Study

A review of current literature shows that there are very few empirical studies on professional learning in education and in particular the effect on student learning and outcomes. Professional learning is an important area that contributes to student learning. Therefore much effort has to be exerted to investigate the many unknowns of professional learning: approaches, effectiveness, roles of stakeholders, and program evaluation. This study seeks to survey the present status of professional learning development in schools. The findings of the study will assist educational leaders and policy makers to evaluate present professional learning experiences and plan for improvement strategies to help both teacher and student learning.

Purpose of the Study

The professional learning standards developed by the NSDC have been adopted by the State of Georgia for implementation in Georgia public schools. Since their implementation in 2003, no data is available that examines how these professional development standards have been implemented. It is now time to review where Georgia public schools stand in standard implementation so that educational planners, policy makers, and school leaders can examine the evidence based upon the research findings to develop practical strategies for professional learning. Therefore, the purpose of this study is to investigate how well Georgia public schools do in implementing the NSDC standards.

Research Questions

The questions in this study include:

1. How well are professional learning standards implemented in Georgia schools?
2. What professional learning standards are strongly implemented in Georgia schools?

3. What professional learning standards are weakly implemented in Georgia schools?
4. How are the strengths of the standard implementation related to the demographics of the schools?
5. Is there any significant relationship among the professional learning standards in Georgia schools?

Methodology

Research Design

This research employs a mixed methodology of quantitative and qualitative approaches. The NSDC's Standards Assessment Inventory was used to survey teachers of selected schools. The survey was followed by a set of six open-ended questions for respondents to further elaborate their points. While the survey solicits the teachers' observation of professional learning standards implementation, the open-ended questions prompt teachers to speak freely of their impressions beyond the survey items.

Research Instrument

The quantitative survey instrument used in this study is the Standards Assessment Inventory designed by the NSDC with established validity and reliability (Vanden-Kiernan, Jones, & McCann, 2009) (see Appendix I). The survey consists of 60 items falling into 12 standards that are collapsed into three overarching categories: learning communities, leadership, resources (context standards); data-driven, evaluation, standard-based, design, learning, collaboration (process standards); equity, quality teaching, and family involvement (content standards). Each survey item is designed under a five-point scale from *Never (0 points), Seldom (1 point), Sometimes (2 points), Frequently (3 points)* to *Always (4 points)*. The researchers sought additional detailed information to supplement the quantitative questions and constructed the six open-ended follow-up questions to the teachers (see Appendix II). The intent was to leave plenty of room for teachers to express themselves beyond the scope of the survey questions.

Research Participants and Procedures

The 55 participants in this study were teachers from 72 randomly selected elementary schools, middle schools, and high schools in eight Metro Atlanta school districts: Atlanta City (12 schools), Marietta City (three schools), Cherokee County (five schools), Clayton County (five schools), Cobb County (15 schools), DeKalb County (15 schools), Forsyth County (five schools), and Fulton County (12 schools). Random selection of schools was made by proportioning the number of schools by school district and school level. One teacher from each of the 72 schools was invited to participate in the study. A total of 55 teachers responded to the Standards Assessment Inventory survey to reflect their observation of professional learning standards implementation in their schools, and to provide additional information about professional development in their schools by responding to the six open-ended questions. The Standards Assessment Inventory survey and the six open-ended questions were sent out to the teachers in the same package. Answers to the open-ended questions provided needed data for qualitative analysis.

Data Analysis

Data generated by the survey were analyzed under the 12 NSDC standards and the three overarching categories.

Descriptive statistics were used to display the participants' responses in each of the standards. Responses of the participants were analyzed by the use of Analysis of Variance (ANOVA) to determine if participants' demographics played a role in the implementation of the NSDC standards. The 12 NSDC standards were also examined to see if any relationship existed among the standards by using Pearson's Correlation as the method of analysis.

Qualitative data solicited from answers to the six open-ended questions were analyzed by type of questions asked and particular attention was paid to detecting emerging themes that came as a result of the analysis. Data were also observed for any distinct agreements, disagreements, relevance, and irrelevance among them. Findings of the qualitative analyses were compared with those of the quantitative analyses for triangulation purposes.

Findings

Demographic information of the 55 participants showed that 28 (50.9%) were from elementary schools, 18 (33.1%) were from middle schools and nine (16%) were from high schools. There were 17 (31.5%) males and 38 (68.5%) females. Nineteen participating teachers (34.5%) were between 21-30 years of age, 20 (36.4%) were between the ages of 31-40, 14 (25.5%) were between the ages of 41-50, and two (3.6%) were between ages of 51-60. In teaching experiences, 22 (40%) were early career teachers with zero to five years of teaching experience, 12 participants (21.8%) had six to 10 years, 15 (27.3%) had 11-15 years, and six (10.9%) had 16-20 years of experience. The ethnic composition of the participants consisted of 39 Caucasians (70.9%), 14 African Americans (25.5%), and two Hispanics (3.6%) (See Table 1).

Table 1
Demographics Distribution of Participants

School Level:	Elementary: 28 (50.9%)	Middle: 18 (33.1%) High: 9 (16%)
Gender:	Male: 17 (31.5%)	Female: 38 (68.5%)
Age:	21-30: 19 (34.5%)	31-40: 20 (36.4%)
	41-50: 14 (25.5%)	51-60: 2 (3.6%)
Years of Teaching:	0-5 years: 22 (40%)	6-10 years: 12 (21.8%)
	11-15 years: 15 (27.3%)	16-20 years: 6 (10.9%)
Ethnicity:	Caucasian: 39 (70.9%)	African American: 14 (25.5%)
	Hispanic: 2 (3.6%)	

Quantitative Data Analysis

The overall responses of the participating teachers indicated an average of 2.06 in a 5 point scale ranging from 0 to 4. Teachers gave the NSDC standard implementation an average grade. When teachers' responses were classified by category, Context Standard had a mean of 2.16, Process Standard had a mean of 1.90, and Content Standard had a mean of 2.30. Results of data analysis indicated that Context Standard and Content Standard received an above average rating while Process Standard had a below average rating. With reference to the 12 individual NSDC standards, Learning Communities was rated 1.71; Leadership, 2.47; Resources, 2.34; Data Driven, 2.04; Evaluations, 1.33; Research-Based, 2.03; Design, 2.07; Learning, 1.78; Collaboration, 2.16; Equity, 2.73; Quality Teaching, 2.19; and Family Involvement, 2.00. While Equity received the highest rating of 2.73, Evaluations received the lowest rating of 1.33. Standards rated about average included Data Driven (2.04), Research-Based (2.03), Design (2.07), Collaboration (2.16), Quality Teaching (2.19), and Family Involvement (2.00). Standards that were rated above average consisted of Leadership (2.47), Resources (2.34), and Equity (2.73). Below average standards were Learning Communities (1.71), Evaluations (1.33), and Learning (1.78) (see Table 2).

Table 2
Descriptive Statistics – Standard ratings: By total average standard, category standard and individual standard

Standard	N	Minimum	Maximum	Mean	SD
TOTAL AVERAGE	55	.92	3.50	2.06	.601
Context Standards	55	1.00	3.33	2.16	.635
Learning Communities	55	0	3.00	1.71	.702
Leadership	55	1.00	4.00	2.47	.861
Resources	55	1.00	3.00	2.34	.653
Process Standards	55	.63	3.63	1.90	.657
Data Driven	55	1.00	4.00	2.04	.834
Evaluations	55	0	3.00	1.33	.773
Research-Based	55	0	4.00	2.03	.855
Design	55	0	3.00	2.07	.837
Learning	55	0	4.00	1.78	.782
Collaboration	55	0	4.00	2.16	.772
Content Standards	55	.73	3.53	2.30	.639
Equity	55	1.00	4.00	2.73	.676
Quality Teaching	55	1.00	4.00	2.19	.713
Family Involvement	55	0	4.00	2.00	.807

Analyses of Variance (ANOVA) were performed to determine if school level, gender, age, teaching experience, and ethnicity of the teachers made any difference in their perceptions of the NSDC standard implementation at schools. In this calculation, dependent variables included the Total Average Standard, Context Standard, Process Standard, and Content Standard. Results

of the analyses showed no significant difference in any of the comparisons in school level, gender, age, teaching experience, and ethnicity at the .05 level.

To determine the relationship among all the categories of NSDC standards, the researchers conducted a correlation analysis of the Context Standard, the Process Standard, and the Content Standard. Results of the analysis showed that all three categories of NSDC standards were highly correlated with one another. The correlation coefficients were .75, .77 and .79 at the .01 level of significance (see Table 3).

Table 3
Correlation Coefficients – Relationship of Context Standard, Process Standard, and Content Standard

Standard	Context	Process	Content
Context	1	.75 **	.77 **
Process		1	.79 **
Content			1

** p < .01

A one-way Analysis of Variance (ANOVA) was performed to determine if there was any significant difference among the overarching categories of NSDC standards (Context Standard, Process Standard, and Content Standard). Results of the analysis indicated a significant difference (F = 5.564, df = 2, p = .005) among the teachers' rating of Context Standard, Process Standard, and Content Standard (see Table 4).

Table 4
Analysis of Variance – Differences among the Categories of NSDC Standards

	Sum of Squares	df	Mean Square	F
Between Groups	4.612	2	2.306	5.564**
Within Groups	66.728	161	.414	
Total	71.340	163		

** p < .01

A follow-up Post Hoc Tukey Test showed a significant difference at the .05 level between Context Standard and Process Standard with a mean difference of .25926 in favor of Context Standard. Another significant difference at the .01 level was also detected between Process Standard and Content Standard with a mean difference of -.40424 in favor of Content Standard (see Table 5).

Table 5
Post Hoc Tukey Test – Comparison of Categories of NSDC Standard Ratings

Standards			Mean Difference	Standard Error	Sig.
Context	-	Process	.25926	.12333	.037
Context	-	Content	-.14498	.12333	.242
Process	-	Content	-.40424	.12277	.001

Qualitative Data Analysis

Qualitative data in this study were collected through the participants' responses to the six open-ended questions following the quantitative survey. All qualitative data were carefully reviewed to identify the main themes and general patterns that emerge from all the answers. Findings as a result of data analysis are presented in the following in the same order as the questions were asked.

As many as eight NSDC standards were mentioned as strong standards for implementation at schools. Out of the eight, the three strongest standards for school implementation were Leadership, Equity, and Resources. Some of the representative comments by participants include:

> The leadership team is often collaborating with the entire faculty about research-based practices. Everyone's opinions and suggestions are solicited when discussing new ways to distribute materials, tools and resources to the classes.
>
> The school leadership promotes a collaborative culture and provides the resources that teachers need in order to grow professionally.
>
> Our school leaders have respect for all student sub-populations, maintaining high expectations for all learners, and the development of positive relationships between teachers and students.
>
> The leadership at our school is strong and our principal leads by example.
>
> At my school, there is a multicultural teacher population that is focused on creating positive relations with students. Teachers show respect for all student sub-groups and equally set high expectations for all students.

The weakest NSDC standards for school implementation included Evaluation, Learning Communities, and Data-Driven. Some of the typical

examples of the teachers' comments include:

> In my school, student classroom performance and previous staff development evaluations are never used to plan future sessions.
>
> Our school is lacking in data-driven analysis that is research- based, and we have no evaluation process in place.
>
> Teachers should be involved in professional development that is geared towards learning new strategies that will help student learning.
>
> We are not given time to discuss the impact of professional learning and have not talked about how we are implementing the professional learning on a daily basis.
>
> School data, design, and evaluation play an intricate role in the development and increased performance in learning and quality teaching. These are definitely areas that need to be addressed through professional development in this school.

Among the three categories of NSDC standards, Context, Process, and Content, participants identified Context as the strongest for implementation at schools. Standards in the Context category include Leadership, Resources, and Learning Communities. Representative comments by teacher participants include:

> The leadership element in this category certainly stands out of the rest with a high rating.
>
> The school leaders are laying a solid foundation by promoting the right type of school culture upon which they can improve the process and content standards.
>
> Our school is receiving a lot of outside support services from the professional learning department. We are learning how to work within a PLC and maximize the resources we have in our building.
>
> The Context standard is characterized by the learning communities in place, the leadership that drives the school as well as the resources available in the building to get the job done.

Teachers overwhelmingly considered Process standard to be the weakest among all three categories of NSDC standards. The Process category consists of six different standards, namely Data-Driven, Evaluation, Research-Based, Design, Learning, and Collaboration. Selected comments from participating teachers include the following quotations:

> The evaluation's rubric for staff development is always the same for all the staff development sessions.
>
> This school has a culture that is complacent within its tradition. Teachers do not look at data to change what they are doing, nor is there much attention paid to designing instruction and curriculum. Teachers are unwillingness to change what has worked well for them for the last couple of years.
>
> Our school, though behind other schools in data driven instruction, has shown an emergent capacity to

> use data to improve the instructional process. Many teachers do not use data to drive instruction. There needs to be more awareness of other tools and research-based materials to evaluate the effectiveness of teaching methods.
>
> There is no evaluation of the professional development that is happening so there is no basis to determine whether the PL has been a success. There is also a lack of support for collaboration through this process in that teachers are not given the time to collaborate to determine the effectiveness of professional development.

In summarizing all the responses to the NSDC standards, participating teachers came to a consensus of the general patterns emerging from the nature of their remarks. While all the participants were not in total agreement, the following patterns of responses can be identified:

> Data-driven instructional approach and evaluation is generally not a part of school culture.
>
> Most of the schools are strong in leadership but weak in data utilization for class instruction.
>
> No school data is available for analysis to determine the professional development activities needed for school improvement.
>
> Strong school leadership is the key to supporting the development of needed professional activities.
>
> Available resources under good leadership provide the needed environment for professional development.

Participating teachers also took an overview of their answers to the first five open-ended questions. By summarizing the key points of their perceptions, they began to reflect on the development of professional activities in their schools. Their overall impressions about professional development were represented in the following paragraphs:

> Teachers and staff need continued coaching and training for improvement.
>
> We are not implementing the NSDC standards well enough. We should familiarize ourselves with these standards and start implementing them.
>
> The NSDC standard implementation is overall poor. The PLC team activities do not align with instructional needs.
>
> Our implementation of the standards is average overall except for data-driven standard which was rated particularly low. Our strong leadership rating will make up for it.
>
> Standard implementation in our school is not doing well. Poor rating in data-driven and family involvement standards pulled down the total scores.

Discussion/Implications

The overall school professional development activities as perceived by teachers were just average. Even though professional development has become a mandate for school assessment in Georgia, financial difficulties experienced by school districts in recent

years have limited the expansion of such needed activities in teachers' professional growth.

In reviewing the results of quantitative and qualitative data analyses, the researchers found basic agreement in the findings of the two analyses. While quantitative findings show that Leadership (M = 2.47), Resources (2.34), and Equity (2.73) were on top of all the standard ratings, qualitative data repeatedly described the significant roles these factors played in the development of professional activities and the way these factors interact to achieve effective outcomes. The consistency of quantitative data and qualitative data is not accidental. It clearly indicates the equitable use of resources under ethical school leadership. On the other end, Learning Communities (1.71), Evaluations (1.33), and Learning (1.78) were identified by quantitative analysis as the weakest NSDC standards. Most of the quantitative findings were confirmed by the findings of qualitative data.

Teachers' reflection from qualitative data called for change as an essential element for school improvement. Self-complacency with tradition was blamed for closeness to new ideas of learning communities. The findings of this study are in agreement with Fullan (1993), Joyce and Showers (1995), and Reeves (2005) who encouraged educators to openly review opportunities brought about by change.

The findings of this study have revealed the significant roles school leaders played in fostering the development of professional activities. The same recognition of leadership contributions to professional learning communities was confirmed by Goodlad (1984), Smith and Andrews (1989), Louis, Kruse, and Raywid (1996), Saphier (2005), Alsbury and Hackman (2006), and McLaughlin and Talbert (2006). Findings from qualitative data analysis particularly point at school principals paying special attention to promoting a great school culture of collaboration among teachers and positive relationships between teachers and students.

In support of professional development activities, Allen and Blythe (2004) claimed that professional learning communities were most effective when formal protocols were established. Responses from teachers in this study also indicated that professional development activities would grow under the right type of culture that fosters a climate of change.

The findings of this study showed that the Learning Communities standard received one of the lowest ratings among all the standards. However, the findings also indicated that the Context category of standards (in which Learning Communities is one) was above average in implementation. It was simply because of the high ratings given to the other standards (Leadership and Equity) that helped the Context standards to uphold the strong rating.

In examining the relationship between the three overarching categories of NSDC standards (Context, Process, and Content), the researchers found a high positive correlation among all three categories. This significant finding can serve as the basis of a conscientious effort in support of any NSDC standard. It clearly indicates that accomplishments shown in one area of standards enhance the overall advancement of other areas as well.

This study has several important limitations to keep in mind when interpreting the findings. The study does not support a causal relationship between survey results and academic achievement. In particular, there is no

evidence from the study that would support that there is a direct link to academic achievement outcomes. A series of research studies that include larger sample size and focused on individual schools at all levels are needed to determine whether the implementation of the standards, as measured by the survey instrument, lead to changes in student academic achievement.

Conclusion

The findings of this study clearly indicated that the implementation of National Staff Development Standards in Metro Atlanta area public schools was unsatisfactory. While most of the teacher participants believed that strong leadership with adequate resources would turn the situation around, many school leaders have not considered professional learning activities as high priority items, perhaps because of attention given to meeting No Child Left Behind demands and fiscal constraint pressures. The study provides further support for the need for valid and reliable instruments to inform and guide improvements in school professional learning programs. In addition, it also supports the need for data and evidence that may directly relate to improvements in student achievement. NSDC (Hirsch, 2009) is taking a strong role by advocating for a new definition of professional learning based on the model for continuous improvement and is seeking legislative amendments to the definition of professional development that is outlined in the reauthorization of the Elementary and Secondary Education Act (i.e., No Child Left Behind Act of 2001). Educational leaders and legislators need to turn their mindsets around by considering professional learning activities as investments to teaching quality improvement which will eventually enhance student achievement. It is a mistake to underfund professional learning activities to meet budget deficits. Since professional learning is a "school key" adopted in the State of Georgia as a criterion to measure school success, state and national legislators, State Department of Education, and school districts need to alter their own understanding of high-quality professional learning to improve teacher practices and to secure sufficient resources for implementation. Failure to do so would deny some students the opportunities for academic success.

References

Allen, D., & Blythe, T. (2004). *The facilitator's books of questions: Tools for looking together at student and teacher work*. New York, NY: Teachers College.

Alsbury, T. L., & Hackman, D. G. (2006). Learning from experience: Initial findings of a mentoring and induction program for novice principals and superintendents. *Planning and Changing*, *37*(3), 169-189.

Cohen, D. K., & Hill, H. C. (2001). *Learning policy*. New Haven, CT: Yale University Press.

Covey, S., Merrill, A., & Merrill, R. (1996). *First things first: To live, to love, to learn, to leave a legacy*. New York, NY: Fireside.

Darling-Hammond, L. (1996). The quiet revolution: Rethinking teacher development. *Educational Leadership*, *53*(6), 4-10.

Drucker, P. (1992). *Managing for the future: The 1990s and beyond*. New York, NY: Truman Talley.

Flecknoe, M. (2002). Measuring the impact of teacher professional development: Can it be done? *European Journal of Teacher Education*, *25*(3), 119-134.

Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London, UK: Falmer Press.

Garet, M. S., Birman, B. F., Porter, A. C., Desimone, L., & Herman, J. (1999). *Designing effective professional development: Lessons from the Eisenhower program [and] technical appendices.* Washington, DC: U.S. Department of Education. Retrieved from http://www2.ed.gov/inits/teachers/eisenhower/index.html

Garet, M. S., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*, 915-945.

Georgia Department of Education (2008). *School keys*. Atlanta, GA

Goldring, E., Porter, A., Murphy, J., Elliott, S., & Cravens, X. (2007). *Assessing learning-centered leadership: Connections to research, professional standards, and current practices*. Retrieved from http://www.wallacefoundation.org/NR/rdonlyres/2D4629AE-6592-4FDD-9206-D23A2B19EAC5/0/AssessingLearningCenteredLeadership.pdf

Goodlad, J. (1984). *A place called school: Prospects for the future*. New York, NY: McGraw-Hill.

Guskey, T. R. (1985). Staff development and teacher change. *Educational Leadership*, *42*(7), 57-60.

Handy, C. (1995). Managing the dream. In S. Chawala & J. Renesch (Eds.), *Learning organizations: Developing cultures for tomorrow's workplace* (pp. 55-56). New York, NY: Productivity Press.

Hirsh, S. (2009). A new definition. *Journal of Staff Development*, *30*(4), 10-11.

Hord, S. M. (1997). *Professional learning communities: Communities of continuous inquiry and improvement.* Southwest Educational Development Laboratory. Retrieved from http://www.sedl.org/pubs/change34/

Hord, S. M. (2008). Evolution of the professional learning community.

The Journal of the National Staff Development Council, 29(3), 10-13.

Joyce, B., & Calhoun, E. (1996). *Learning experiences in school renewal: An exploration of five successful programs*. Eugene, OR: ERIC Clearinghouse on Educational Management. Retrieved from http://www.eric.ed.gov/PDFSD401600.pdf

Joyce, B., & Showers, B. (1995, May). Learning experiences in staff development. The *Developer*. Dallas, TX: National Staff Development Council, p. 3.

Joyce, B., & Showers, B. (2002). Designing training and peer coaching: Our need for learning. In B. Joyce & B. Showers (Eds.), *Student achievement through Professional development.* Alexandria, VA: ASCD. (p. 69-85). Retrieved from http://www.school-change.org/NEWSLETTER/volume_9_3/randd-engaged-joyce.pdf

Koellner-Clark, K., & Borko, H. (2004). Establishing a professional learning community among middle school mathematics teachers. *Proceedings of the 28th Conference of the International Group for the Psychology of Math Education 2*, 223-230.

Kruse, S., Louis, K., & Bryk, A. (1994, Spring), Building professional learning community in schools. *Issues in Restructuring Schools*, 6, 3-6. Retrieved from http://www.wcer.wisc.edu/archive/cors/issues%5Fin%5Schools/issues_NO_6_SPRING_1994.pdf

Louis, K., Kruse, S., & Raywid, M. (1996). Putting teachers at the center of reform. *NASSP Bulletin*, *80*(580), 9-21.

McLaughlin, M., & Talbert, J. (2006). *Building school-based teacher learning communities: Professional strategies to improve student achievement*. New York, NY: Teachers College Press.

National Staff Development Council (2001). *National Staff Development Council Standards.* Dallas, TX: National Staff Development Council. Retrieved from http://www.nsdc.org/standards/index.cfm

Newmann, F., & Wehlage, G. (1995). *Successful school restructuring: A report to the public and educators by the Center for Restructuring Schools.* Madison, WI: University of Wisconsin Press.

Reeves, D. (2005). Putting it all together: Standards, assessment, and accountability in successful professional learning communities. In R. DuFour, R. Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp. 45-63). Bloomington, IN: Solution Tree.

Saphier, J. (2005). *John Adams' promise: How to have good schools for all our children, not just for some*. Acton, MA: Research for Better Teacher.

Schmoker, M. (1999). *Results: The key to continuous school improvement* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Harper & Row.

Smith, W., & Andrews, R. (1989). *Instructional leadership: How principals make a difference.* Alexandria, VA: Association for Supervision and Curriculum Development.

Sparks, D. (2005). Leading for transformation in teaching, learning, and relationships. In R. DuFour, R.

Eaker, & R. DuFour (Eds.), *On common ground: The power of professional learning communities* (pp.155-175). Bloomington, IN: Solution Tree.

Vanden-Kiernan, M., Jones, D., & McCann, E. (2009, February). *Latest evidence on the National Staff Development Council's Standards Assessment Inventory*. Dallas, TX: National Staff Development Council. Retrieved from http://www.nsdc.org/standards/sai_sedlbrieffinal.pdf

Vescio, V., Ross, D., & Adams, A. (2006, January). *A review of research on professional learning communities: What do we know?* Paper presented at the NSRF Research Forum, Denver, CO. Retrieved from http://www.nsrfharmony.org/research.vescio_ross_adams.pdf

Yoon, K.S., Duncan, T., Lee, S.W.Y., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement* (Issues and Answer Report, REL 2007 - No. 033). Retrieved from http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/REL_2007033.pdf

Appendix I

National Staff Development Council

Standards for Staff Development

Context Standards

Staff development that improves the learning of all students:

- Organizes adults into learning communities whose goals are aligned with those of the school and district. (Learning Communities)
- Requires skillful school and district leaders who guide continuous instructional improvement. (Leadership)
- Requires resources to support adult learning and collaboration. (Resources)

Process Standards

Staff development that improves the learning of all students:

- Uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement. (Data-Driven)
- Uses multiple sources of information to guide improvement and demonstrate its impact. (Evaluation)
- Prepares educators to apply research to decision making. (Research-Based)
- Uses learning strategies appropriate to the intended goal. (Design)
- Applies knowledge about human learning and change. (Learning)
- Provides educators with the knowledge and skills to collaborate. (Collaboration)

Content Standards

Staff development that improves the learning of all students:

- Prepares educators to understand and appreciate all students, create safe, orderly and supportive learning environments, and hold high expectations for their academic achievement. (Equity)
- Deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately. (Quality Teaching)
- Provides educators with knowledge and skills to involve families and other stakeholders appropriately. (Family Involvement)

Appendix II

Study of NSDC Standards Implementation

Open-Ended Questions

Please respond to the following questions about NSDC standards implementation at your school. Information supplied is straightly for research purposes only. It will be deleted after analysis. Participants' identities will not be disclosed.

1. Which NSDC standards are the strongest in your school? Why?

2. Which NSDC standards are the weakest in your school? Why?

3. What category of standards (context, process, or content) is the strongest in your school? Why?

4. What category of standards (context, process, or content) is the weakest in your school? Why?

5. Have you observed any emerging pattern in the implementation of NSDC standards?

6. Overall, how well are the professional learning standards implemented in your school? Why?