

Professional Development and Student Achievement in High Poverty Schools: Making the Connection

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Abstract: *The Alabama Torchbearer School Program was established to identify high-poverty, high-performing schools in the state. The purpose of this study was to determine if there are differences among the perceptions of principals in Torchbearer Schools and principals in similar schools with low student performance relative to the professional development practices in their schools. Three one-way analysis of variance (ANOVA) procedures were conducted to assess differences in the perceptions of principals in the implementation of process, content and context of the National Staff Development Council standards (NSDC 2001). The findings from this study suggest that principals in Torchbearer Schools perceived higher levels of the implementation of NSDC standards (content, process and context) in their schools than their counterparts in non-Torchbearer Schools as measured by the NSDC survey. Additional statistical procedures supported this finding.*

Introduction

A growing emphasis on student achievement as a result of No Child Left Behind legislation (No Child Left Behind [NCLB] 2001) and a strong focus on accountability (National Middle School Association 2003) have left many schools in the United States searching for ways to improve student learning and achievement. The emphasis on high levels of achievement for all students is unprecedented in the country (Ylimaki 2007). Such emphasis has led to an increased interest on improving schools, having highly competent leaders and teachers, and fostering and implementing high-quality professional development for teachers and leaders. This need for academic achievement has been emphasised most strongly for students who have been traditionally underperforming in schools. Most of these students are in schools with high rates of poverty among students (Kannapel & Clements 2005). At the beginning of the 1990s, educators began exploring how schools with high numbers of poor students could be as successful in student performance as schools in more advantaged communities. Research indicates that students who live in poverty experience school differently from more affluent students (Comer 2001; Griffith 2002; Williams 2003). However, research has also demonstrated that students in high-minority and high-poverty schools can perform well (Simon & Izumi 2003; Kannapel & Clements 2005). The literature describes several common elements that

appear to correlate positively with successful student achievement in high-poverty schools. High-poverty schools with principals and faculties that believe in their students, set high goals for them, and engage in professional development activities that promote supportive and nurturing classroom environments have students with higher student achievement scores (OSPI 2002; Desimone, Smith & Phillips 2007).

High-quality professional development programmes are an essential component in school improvement (Hirsh 2009) and in meeting goals established by the federal mandates of No Child Left Behind (NCLB 2001) and state mandates around the country. However, professional development practices have historically been unplanned and haphazardly implemented in schools. The literature clearly has dictated what high-quality professional development looks like (NSDC 2001); however, despite this, many schools continue to conduct professional development in the same way they have for decades (Blankstein 2004; DuFour 2004). Addressing this issue, Sparks & Hirsch point out that 'most professional development and school improvement activities continue to leave teachers' knowledge and skills untouched' (1997: 1).

Researchers have discovered that effective professional development is an essential element in promoting significant change in school leaders' practices, teachers' instructional practices and student learning (Sparks & Hirsh 1997; Sparks 2005). Delivering such professional development generally requires changing the manner in which professional development is structured and delivered (Sparks & Hirsh 1997; Sparks 2005). In order to create conditions that promote the growth and development of teachers within a school and subsequently lead to improvement in student performance, leaders must promote a climate of professional growth through professional development activities that are analytical and reflective of a school's vision and mission (Guskey 2000). Educators' perceptions and beliefs in the importance and effectiveness of professional development practices are repeatedly noted in the research as an essential component in eliciting positive and sustained change in educational practices. 'When a school or district believes professional development is the key to improving schools, that attitude permeates everything that they do' (Richardson 2000: 4). Thus, the focus of professional development has shifted from evaluating effectiveness by the number of attendees and whether they enjoyed the workshop to determining the impact of the professional development on student achievement (Joyce & Showers 2002). The most effective professional development activities for increasing teachers' knowledge and skills include those that provide teachers with opportunities to actively engage with each other around curriculum and instruction (Desimone, Smith & Phillips 2007: 1087).

Theoretical Perspective

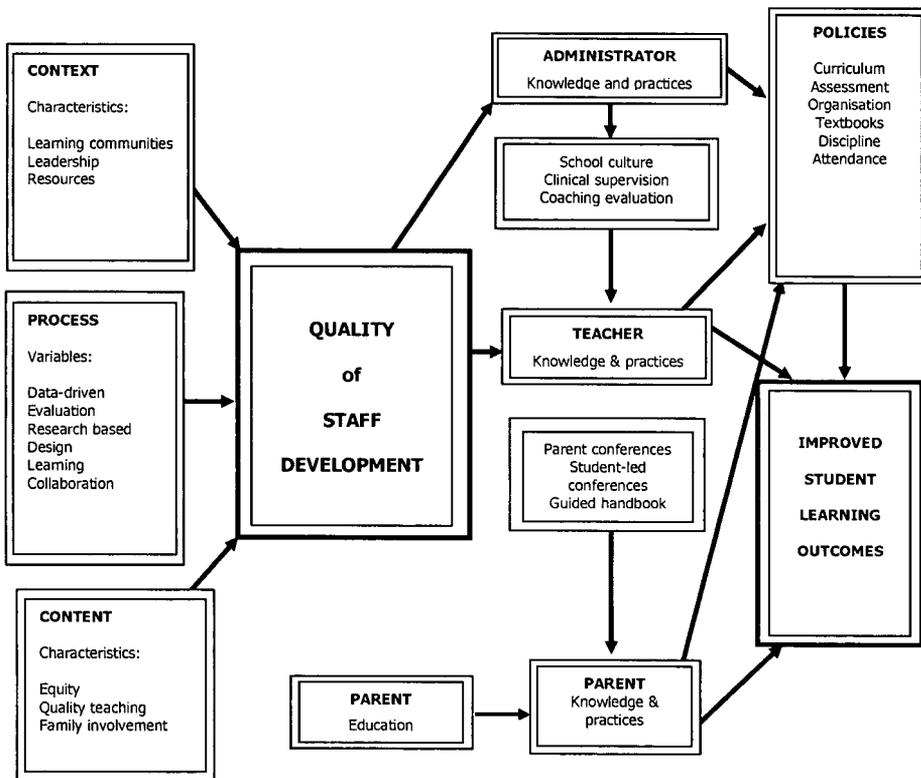
The National Staff Development Council (NSDC), in collaboration with major national and state organisations, created a set of professional development standards for educators that could be systematically utilised to design quality professional development programmes that would impact student achievement. The first set of standards was adopted in 1995. These standards offered a framework for creating professional development opportunities that are responsive to school leaders, teachers and students, with an increased focus on student achievement. There are 12 standards that are categorised as context, process or content standards. Each standard is a statement of the professional development expectation and establishes the level of performance to which all schools can aspire. The NSDC standards

(NSDC 2001) emphasise that professional development should not be perceived as a 'one-shot' opportunity to disseminate information on classroom innovation and reform practices. The standards also provide an explanation of ways to implement high-quality professional development in schools.

In 2001, the NSDC (2001) proposed a revision of the original set of 12 standards in order to identify and document a more solid research-base linkage between professional development practices and improved student learning. The revised NSDC Standards (2001) advocate that 'high-quality' professional development must be results-driven, standards-based and job-embedded.

Earlier, Guskey and Sparks (1996) used the concepts inherent in these standards to provide a theory of change in a conceptual framework that identifies linkages between professional development provided to educators and improved student learning (see Figure 1). Beginning with the three boxes on the left (context, process, content), the model illustrates the 12 components necessary for high-quality professional development.

Figure 1: Staff development and improvements in student learning (Guskey & Sparks 1996: 35).



The Alabama Leadership Academy

Just as school systems have sought ways to meet the federal standards and improve schooling for all students, states have become involved in this endeavour in a variety of ways. In Alabama, one of the initiatives involved the establishment of the Alabama Leadership Academy (ALA 2006). Launched in mid-2001, the Alabama Leadership Academy (ALA) was the first statewide effort by the Alabama State Department of Education to provide ongoing professional development for principals of all schools. The ALA is a professional development initiative of the Classroom Improvement Section of the Alabama State Department of Education. The emphasis of the ALA is to increase the achievement of all students in Alabama by supporting the growth and development of superintendents, principals and teachers as instructional leaders. The ALA seeks to increase the quality and capacity of leadership in every school in Alabama (www.alex.state.al.us). The Alabama Leadership Academy Council meets three times a year to determine issues and content. It includes 14 principals, 2 superintendents and 5 Alabama State Department of Education staff members representing the areas of Classroom Improvement, Special Education, Federal Programs and the Alabama Reading Initiative Program.

A book study conducted by the ALA formed the basis of an initiative labelled the Torchbearer Program. The members of the ALA believed that there were some high-performing, high-poverty schools in Alabama. They decided to develop a programme that would highlight these schools and facilitate others to succeed. They began by engaging in a book study using *No Excuses: 21 Lessons from High-Performing, High-Poverty Schools* by Samuel Casey-Carter (2000). This book outlines research-based methods for raising student achievement in 21 high-poverty population schools in Torchbearer Schools in the nation.

As an outgrowth of this book study, the ALA established the Torchbearer School Program. This programme was established to identify high-poverty, high-performing schools in the state in an effort to honor those who were succeeding and to use the strategies and structures as models for others to emulate. To be considered for recognition as a Torchbearer School, schools must meet the following criteria:

- a. at least 80 per cent of the student population receive free/reduced meals;
- b. at least 80 per cent of students score at Levels III or IV on the Math section of the Alabama Reading and Mathematics Test (ARMT);
- c. at least 80 per cent of students score at Levels III or IV of the Reading section of the Alabama Reading and Mathematics Test (ARMT);
- d. at least 95 per cent of twelfth-grade students pass all required subjects of the Alabama High School Graduation Exam (high schools); and
- e. a graduation rate above the state average (high schools).

The first Torchbearer Schools were identified in the 2004–05 school year. Thirteen schools were identified. Following school identification, members of the ALA (2006) conducted site visits in 20 Torchbearer Schools to discern why Torchbearer Schools were successful when other schools with similar demographics had not been. The Torchbearer principals completed a survey, from which data and qualitative responses indicated that the Torchbearer Schools had several traits in common. The most striking commonality among these schools was that principals, teachers and students were excited about learning (ALA 2006). In 2008, a further principal survey was administered to principals in Torchbearer Schools and the principals indicated that the strength and commitment of their professional development programme

was among the reasons for their success (ALA 2009). Principals reported that teachers in Torchbearer Schools participate in professional development that allows them to provide input into instructional decisions, and that high-level, ongoing, capacity-building professional development is a priority in their schools. Seventy-nine schools have been designated as Torchbearer Schools since the inception of the programme.

Little research exists about the principals of Alabama Torchbearer Schools and the impact of their perceived professional development practices in relationship to the National Staff Development Standards and the role it has in creating school success and academic achievement in high-poverty schools. Lindahl (2008) compared the organisational culture and climate of Alabama Torchbearer Schools and non-Torchbearer Schools serving low-income students. The results from this study strongly supported the fact that the Torchbearer Schools had significantly more positive school climates than their counterparts, non-Torchbearer Schools. However, Lindahl's study did not address the role of professional development in the success of high-poverty high-achieving schools. Even though they look alike in terms of demographics, students in Alabama Torchbearer Schools and non-Torchbearer Schools are performing differently, as determined by student achievement scores on the Alabama Math and Reading Achievement Test, the Alabama High School Graduation Examination, and the percentage of students graduating. Determining whether there are differences in Torchbearer and non-Torchbearer principals' perceived implementation of the NSDC standards and the impact on student achievement may provide evidence about how to positively affect student learning in high-poverty schools in Alabama.

Purpose of the Study

The purpose of this study was to determine if there are differences among Torchbearer and non-Torchbearer Schools principals' perceptions of the implementation of the NSDC standards. Student success may be facilitated to the extent that the NSDC standards are embraced by schools. Principals in Torchbearer Schools have cited professional development as an important element in school success (ALA 2009), yet no study has been done to determine the extent to which these professional development practices follow the NSDC guidelines and whether professional development practices in Torchbearer Schools differ from those in non-Torchbearer Schools.

Significance of the Study

School districts throughout the nation and in many parts of the world are now being held accountable in making sure that students meet high standards. School leadership and teacher performance are at the pinnacle of student success. In the United States, the No Child Left Behind Act of 2001 and NSDC Standards coupled with new standards for state and national accountability create an atmosphere that is results and data-driven.

Research-based professional development and training has been provided for those in other professions for a number of years (Sparks & Hirsch 1997). Research indicates that it is imperative that individuals in the education profession become equipped with the knowledge and skills that positively impact their performance, while using their increased skills to influence the academic performance of their students (NSDC 2001).

Research indicates that student achievement will remain stagnant unless professional development is addressed as the key to student success (Joyce & Showers 2002). Meta-

analyses have identified studies that provide empirically derived support for the positive impact of professional development on student achievement (Yoon, Duncan, Lee, Scarloss, & Shapley 2007; Blank & de la Alas 2009). Students in Alabama Torchbearer Schools and non-Torchbearer Schools are performing differently as determined by the criteria set forth to qualify as a Torchbearer School. Determining Torchbearer and non-Torchbearer principals' perceived implementation of the NSDC standards may provide important evidence about the extent to which professional development practices are a factor in fostering student learning in high-poverty schools in Alabama. It may also provide meaningful information for those in other states and nations about the value of professional development and its importance in student success in high-poverty schools.

Limitations

Since only elementary, middle and junior high schools in Alabama were included in this study, it may not be generalisable to other states and nations. However, the findings should have relevance to researchers in these settings as they examine ways to enhance professional growth of educators and foster student performance.

Methodology

Population and Sample

Two groups were identified to participate in this study. One group, identified as Torchbearer School principals, are in high-poverty and high-performing schools that have been awarded the Alabama Torchbearer School designation beginning in the 2004–05 school year because they had met the criteria designated for this honor. Since the inception of the Alabama Torchbearer Program, 79 elementary, middle and junior high schools have met these criteria. Principals from 59 Torchbearer Schools agreed to participate in the study.

A comparison sample of principals from lower-performing elementary, middle and junior high schools serving low-income students was selected using data from the web site of the Alabama Department of Education (ALSDE; www.alasde.edu). First, the ALSDE's list of schools that did not make adequate yearly progress for the school year 2008–09 was used to determine which schools met this criterion. Then, in order to assure the matched school population, the ALSDE database on those schools was consulted to identify which of those schools served populations in which 70 per cent or more of the students qualified for free or reduced priced lunch. Statewide, a total of 50 schools met these criteria, and 29 principals from non-Torchbearer Schools participated in the study.

Research Questions

Two research questions were addressed:

- a. To what extent are there differences in the perceptions of principals in Alabama Torchbearer Schools and their counterparts in non-Torchbearer Schools in the implementation of the following NSDC standards:
 - i. processes (data driven, evaluation, research-based, design, learning, and collaboration);
 - ii. content (equity, quality teaching and family involvement); and
 - iii. context (learning communities, leadership and resources)?

- b. What are the inter-correlations among the 12 subscales for all principals and partial correlations controlling for principal type for the 12 individual subscales of the NSDC standards?

Data Collection Process

Survey Instrument

The NSDC Self-Assessment Survey was used in this study. The National Staff Development Council contracted with the Southwest Educational Development Laboratory (SEDL) to develop an assessment instrument based on the 12 national staff development standards. The instrument is designed to be completed by principals, teachers and other school staff to measure the degree to which a professional development programme of a school adheres to the standards, thereby providing schools across the United States with a mechanism for diagnosing and aligning their professional development programmes with the NSDC standards (SEDL 2003).

There are 12 NSDC standards. They are categorised into three groups: context, process and content standards. Each standard is a statement of a staff development expectation. The standards also include the levels of performance to which schools can aspire. The survey included three to five items per standard, representing essential aspects of each of the 12 NSDC standards. Items were rated on a three-point scale (1 = low, or not present; 2 = medium, or inconsistently present; 3 = high, or consistently present).

Permission to use the NSDC survey was granted by the NSDC. After approval to conduct the study was received from the University Institutional Review Board, the survey and a letter asking for participation were sent to all principals in the population. A stamped, self-addressed envelope in which to return the completed survey was also included. A second mail-out was sent three weeks later as a follow-up.

Data Analysis

Three one-way analysis of variance (ANOVA) procedures were conducted to assess differences in the perceptions of principals in Alabama Torchbearer Schools and their counterparts in non-Torchbearer Schools in the implementation of the NSDC standards: process, content and context. Inter-correlations were conducted for the 12 subscales of the NSDC standards and partial correlations were conducted for the 12 individual subscales controlling for principal type. An alpha level of .05 was used for all statistical tests.

Results

There were 88 respondents, yielding an overall response rate of 73 per cent: 59, or 84 per cent, of the principals in Torchbearer Schools responded; 29, or 58 per cent, of the principals in non-Torchbearer Schools responded.

A one-way ANOVA statistical procedure was used to determine the extent of differences between the Torchbearer principals and Non-Torchbearer principals for the process standards to respond to the research question: 'To what extent are there differences in the perceptions of the implementation of the following National Staff Development Council (NSDC) standards for (a) processes (data driven, evaluation, research-based, design, learning and collaboration); (b) content (equity, quality teaching and family involvement); and (c) context (learning

communities, leadership and resources), for principals in Alabama Torchbearer Schools and their counterparts in non-Torchbearer Schools?' The results of the one-way ANOVA for the process standard are shown in Table 1. Results revealed statistically significant differences between principals in Torchbearer Schools and principals in non-Torchbearer Schools for the process standard, $F(1.83) = 229.33$, $p < .01$, partial eta squared = .73. Principals in Torchbearer Schools perceived a higher level of implementation of the process standards (mean = 73.52; SD 4.79) compared to their counterparts in non-Torchbearer Schools (mean = 51.81; SD 8.40).

Table 1: One-way ANOVA for processes by principal type

Principal	Mean	SD	N			
Torchbearer	73.5172	4.7839	58			
Non-Torchbearer	51.8148	51.8148	27			
Source	Type III sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected model	8677.396	1	8677.396	229.330	.000	.734

A one-way ANOVA statistical procedure was used to determine the extent of differences between the Torchbearer principals and non-Torchbearer principals for the content standards to respond to the research question: 'To what extent are there differences in the perceived implementation of the following National Staff Development Council (NSDC) standards content (data driven, evaluation, research-based, design, learning and collaboration) for principals in Alabama Torchbearer Schools and their counterparts in non-Torchbearer Schools?' The results of the one-way ANOVA for content standard are shown in Table 2. Results revealed statistically significant differences between principals in Torchbearer Schools and principals in non-Torchbearer Schools for the content category, $F(1.83) = 360.37$, $p < .01$, partial eta squared .81. Principals in Torchbearer Schools perceived higher levels of implementation of the content standards (mean = 46.41; SD 2.56) compared to their counterparts in non-Torchbearer Schools (mean = 32.60; SD 4.47).

Table 2: One-way ANOVA for content by principal type

Principal	Mean	SD	N			
Torchbearer	46.4138	2.5587	58			
Non-Torchbearer	32.5926	4.47437	27			
Source	Type III sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected model	3519.365	1	3519.365	360.365	.000	.813

A one-way ANOVA statistical procedure was used to determine the extent of differences between the Torchbearer Principals and non-Torchbearer Principal for the context standards to respond to the research question 'To what extent are there differences in the perceived implementation of the following National Staff Development Council (NSDC) standards for the context category (learning communities, leadership and resources) for principals in Alabama Torchbearer Schools and their counterparts in non-Torchbearer Schools?' The results of the one-way ANOVA for context standard are shown in Table 3. Results revealed statistically significant differences between principals in Torchbearer Schools and principals in non-Torchbearer Schools for the context category, $F(1.83) = 322.42$, $p < .01$, partial eta squared .80. Principals in Torchbearer Schools perceived a higher level of implementation of the context standards (mean = 37.34; SD 2.47) compared to their counterparts in non-Torchbearer Schools (mean = 23.33; SD 4.74).

Table 3: One-way ANOVA for context by principal type

Principal	Mean	SD	N
Torchbearer	37.3448	2.46770	58
Non-Torchbearer	23.3333	4.73036	27

Source	Type III sum of squares	df	Mean square	F	Sig	Partial eta squared
Corrected model	3616.944	1	3616.944	322.420	.000	.795

When responses for principals of Torchbearer and non-Torchbearer Schools were combined from the NSDC survey, all correlations were statistically significant at $\alpha < .01$, except for the correlation between standard four (data driven) and standard six (research based) ($r = .12$; $p = .27$). Partial correlation is a method used to describe the relationship between two variables controlling for effects of third variable (Ary, Jacobs, Razavich & Sorenson 2005). When controlling for type of principal, some of the correlation coefficients were not statistically significant. Table 4 shows correlations among the subscales controlling for principal type. For the three subscales process, content and context, principals in Torchbearer Schools perceived a higher level of implementation of the standards compared to their counterparts, principals in non-Torchbearer Schools.

Discussion

This study focused on differences among Torchbearer and non-Torchbearer Schools principals' professional development practices as measured by principals' perceptions of the implementation of the NSDC standards process, content and context. The NSDC's standards were designed to assist educators in developing the 'insights, knowledge, and skills they need to become effective classroom and school leaders, better able to increase student learning' (NSDC 2001: vi). Student success may be facilitated to the extent that the NSDC standards are embraced by schools. This information could be valuable to school principals in Alabama and the nation, particularly for principals in high-poverty, low-achieving schools. The following conclusions about differences in the perceptions of principals in Torchbearer and non-Torchbearer as measured by the NSDC standards were drawn from this study.

Table 4: Partial correlation coefficients for 12 standards controlling for principal type

Stand.	Stand. 1	Stand. 2	Stand. 3	Stand. 4	Stand. 5	Stand. 6	Stand. 7	Stand. 8	Stand. 9	Stand. 10	Stand. 11	Stand. 12	
Stand 1		.210	.264*	.094	.117	.170	.243*	.161	.095	.057*	.051*	.122*	
Stand 2			.402*	.515	.331	.110	.387	.561	.413	.098	.107	.177	
Stand 3				.439	.020	.057	.267*	.303*	.137	.137	.028	.148	
Stand 4					.093	.322	.227*	.336	.586	.000	.166	.002	
Stand 5						.030	.170	.270	.348	.069	.214	.164	
Stand 6							.204	.182	.035	.025	.077	.278	
Stand 7								.383	.310*	.181*	.170	.404	
Stand 8									.585*	.079	.370*	.347*	
Stand 9										.040	.231*	.062	
Stand 10											.524*	.316*	
Stand 11												.503*	
Stand 12													.000

P < .05; *statistically significant correlations

Principals in Torchbearer Schools perceived higher levels of the implementation of NSDC standards (content, process and context) in their schools than their counterparts in non-Torchbearer Schools as measured by the NSDC survey. Additional statistical analysis procedures supported this finding. The NSDC indicates that all three standards (process, content and context) of the National Staff Development Standards need to be in place in order to plan, design and implement the kind of professional development that will impact student achievement (NSDC 2001). Students in Alabama Torchbearer Schools have higher test scores on the Alabama Reading and Math Achievement Test (ARMT) and the Alabama High School Graduation Examination (Alabama Leadership Academy 2009) than their counterparts in non-Torchbearer Schools. One should not assume that this is solely the result of professional development occurring, as findings from this study support other research; thus it appears that there may be some relationship between the level of implementation and student achievement levels (Guskey 2000; NSDC 2000; Killion 2002; Hirsh 2006).

All of the principals in this study are in high-poverty schools. One group appears to be successful in improving student achievement. The results from this study indicate there are differences in perceptions of the implementation of the NSDC standards between principals in the Torchbearer Schools and those in non-Torchbearer Schools.

Professional development is most effective when it takes place in vibrant professional learning communities. The ALA (2009) reported that principals in Torchbearer Schools were committed to being a community of lifelong learners ensuring that all students achieve their maximum potential. The literature provides modest evidence that professional learning communities

impact teaching. In an educational climate that is increasingly directed by the demands of accountability, the viability of professional learning communities will be determined by their success in enhancing student achievement (Hord & Sommers 2008). This makes it incumbent upon professional education personnel to demonstrate ways in which their work in learning communities improves student learning. Principals in Torchbearer Schools appear to understand the value and importance of establishing learning communities, and this may be why their perceptions of the implementation of the standards were more favourable than principals in non-Torchbearer Schools. The findings suggest that research should be conducted to document the creation of professional learning communities in the Torchbearer Schools and ways in which student learning and academic success may be impacted. Further research may provide a narrower focus and richer investigation of this topic. For example, interviews may help to identify a need for probing questions, and honest responses may be reported in more depth.

Professional development is most effective when there are strong leaders. The ALA (2006) reported that the Torchbearer principals recognise the value of high-quality professional development, encouraged and facilitated teacher participation in high-quality professional development, and communicated about the benefits of professional development to key stakeholders (parents, school boards, community organisations), and this could be one of the reasons why their perceptions of the implementation of the NSDC standards are different from the principals in non-Torchbearer Schools as suggested in this study. Professional development for school leaders should be grounded in their participation in rigorous, stimulating learning opportunities that will prepare them for the continuous and changing demands of the profession, and research indicates that more professional development is needed for school leaders (Holloway 2003). Maybe principals in Torchbearer Schools have received training in establishing high-quality professional development, and perhaps their school systems provide more of this. Further studies are needed to determine what types of training these principals have had in relation to the NSDC standards. This could be achieved through the use of interviews and observations.

Findings from this study suggest that principals who value and implement high-quality professional development may be a factor in positive student achievement in high-poverty schools. Consequently, state departments of education and superintendents may do well to provide training to all principals of high-poverty schools on the use of the NSDC standards and to provide support systems to aid principals in implementing them.

Another essential element in assuring that professional development will be successful is engaging in evaluation endeavours that will garner important information about the impact of the professional development activities in such schools. In addition, further research could examine teachers' perceptions of the implementation of the NSDC standards. It is important to focus on improving the teacher, according to Guskey (2003), because true educational reform does not take place at the state or local level. Holloway (2003) indicated that reform takes place at the school-building and classroom levels. Studies could be conducted to examine differences in teachers' perceptions and principals' perceptions on the implementation of the NSDC standards and actual practices.

Implications for Policy and Practice

The results of this study suggest that Torchbearer principals view the implementation of high-quality professional development standards as being more well-integrated into their

professional development practices than their counterparts in non-Torchbearer Schools. Although the reasons for these findings are unknown, there are some possible explanations. Perhaps Torchbearer principals engaged in long-term strategic planning that included hiring teachers who are prepared to engage in collaborative professional development. It may also suggest that principals in Torchbearer Schools worked to develop a school culture among teachers in which continual learning is considered an essential aspect of professional development that leads to improved student achievement. The cultural differences found in Lindahl's (2008) study support this possibility.

It may also be possible that principals in the Torchbearer Schools have had more exposure to high-quality professional development, are better funded to provide it, or have had some training or education in what makes high-quality professional development. These possibilities bear further study.

Since the students in Torchbearer Schools are performing at higher levels than their counterparts in other schools, it is likely that the professional development activities in these schools are having a positive impact on student learning. Thus, it seems vital that such activities should be implemented in all such schools.

Results of this study suggest that principals, particularly those in high-poverty schools in which student performance is lagging, may need more guidance and professional development themselves in terms of understanding what high-quality professional development is and how the standards might be implemented in their schools. Since it appears that the Torchbearer principals are implementing more high-quality professional development programmes than their counterparts, it may be of value to have them serve as mentors or speakers for other principals.

These findings have implications for those outside of Alabama as well. They appear to verify the importance of high-quality professional development that is collaborative, long-term, consistent with the needs of the students and school, and embedded in everyday practice. The findings emphasise the need to assure that principals understand the value of this type of professional development and have the skills, knowledge and resources to implement it in their schools. School systems and states should consider developing professional development experiences, conferences and seminars that would aid principals in successfully planning and implementing long-range professional development systems in their schools. The type of approach used to assure that principals will acquire this knowledge and skill will vary. A 'one-size-fits-all' approach would not be appropriate. Designs for professional development extend well beyond the most common designs, conferences, workshops or courses to include coaching, professional portfolios, collaborative teamwork focused on planning and developing benchmark assessments, examining student work, and book studies, among others (NSDC 2001).

Recommendations for Future Research and Conclusion

Continued research regarding professional development best practices in high-poverty schools is critically important to amass evidence that informs understandings of the types of high-quality professional development that impact student achievement. Further studies regarding professional development and student achievement in high-poverty schools is a worthy research goal and warrants continued interest from educational researchers, policymakers and practising school principals.

In Alabama, it might be helpful to conduct studies with teachers in these schools to determine if they view the implementation of professional development standards in their schools in the same manner as their principals. In addition, some case studies in Torchbearer and non-Torchbearer Schools may provide deeper insights into the differences that appear to be present and the ways in which professional development is impacting teaching, learning, student achievement and school success. Such research would verify or refute the findings of this study and provide further areas of research. An examination of the barriers principals face and the factors that facilitate their ability to implement high-quality professional development standards might also provide some insights into why the differences in implementation were so great.

In other settings, it might be of value to replicate this study to see if the differences in schools where student performance differs so widely might also indicate that professional development processes differ as well. Such findings might be an important element in helping principals to turn around these schools. Likewise, they may point to the need for education, training and mentoring of principals in sound professional development practices.

Professional development is a powerful tool in developing individuals and organisations and in bringing about educational improvement. This study has examined the degree to which principals in successful high-poverty schools view their professional development practices. The findings present a hopeful view that these principals are creating collaborative environments in which everyone is viewed as a learner. It is hoped that the research will lead to further studies and will give insights to principals and other educational leaders that will foster school improvement and student success.

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