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Edward W. Chance Dissertation Award: A case study: Leadership and its Effect on Achievement of Children from Poverty in a Rural Setting

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Edward W. Chance Dissertation Award for Doctoral Research in Rural Education

A Case Study: Leadership and its Effect on Achievement of Children from Poverty in a Rural Setting

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The purpose of this study was to examine the perceived effectiveness of leadership in a Missouri rural K-8 school with a high incidence of poverty that consistently met federal and state accountability mandates. The concepts of accountability as measured by student achievement, the unique educational needs of children from poverty, and the challenges of the rural school location were viewed through the lens of leadership. Ten practices of leadership that lead to consistent student achievement were suggested. They include integrity and courage, focus and vision, expectations and data evaluation, resources and empowerment, role modeling, and collaboration. Implications of this study could impact mentoring programs to support beginning and practicing administrators, leadership training in schools of education and state leadership programs, programs and instruction designed for children from poverty, and considerations of the monetary and educational cost of consolidation.

Rural educators throughout the United States grapple with the challenges of school improvement focused on high stakes testing results. Student achievement from such testing programs has far reaching ramifications resulting in extensive research to identify factors that contribute to student success. As a result of such mandates, Missouri rural principals are faced with the threat of non-accreditation if Missouri Assessment Program (MAP) scores are low (Missouri School Improvement Program, 2000). Another challenge to rural educators (Citizens for Missouri Children, 2005) is the increasing number of children from homes of poverty, who have unique educational needs. In addition, rural schools are confronted with barriers such as funding, isolation and community support (Collins, 2001). School leaders, in such an environment, can succumb to bounded rationality and become content with "satisfysing" rather than meeting the challenge (Cervero & Wilson, 2006; Morgan, 1997). Some principals/superintendents, however, overcome the barriers to success through effective leadership.

Given the success of some K-8 rural schools despite barriers, the overarching question emerged: How do some small, rural Missouri K-8 schools with a high incidence of poverty consistently achieve the Distinction in Performance designation? The review of the literature revealed several secondary questions in this single case study. How do poverty and rural location affect achievement? What factors lead to success and increased student achievement in these small, rural schools? What leadership qualities does a principal/superintendent in a small rural school possess that lead the school to consistent achievement? What processes does the leader implement that lead to teaching and learning? What structures does the leader implement to establish the relationships necessary for teaching and learning? Thus the purpose of this single case study was to investigate how one rural Missouri K-8 school consistently achieves Distinction in Performance despite significant barriers to student achievement. Since the leadership of the principal is critical (Davis, 2003; Furman, 2003; Spears & Lawrence, 2004) this study viewed student achievement in a rural K-8 school with a high incidence of poverty through the lens of leadership.

Conceptual Underpinnings

Rural School Issues

Current literature identifies both challenges and advantages of rural schools, but several demands of NCLB pose unique problems for rural schools (Lyson, 2005). Such difficulties include the small size of the student body, which can cause test scores at benchmark years to swing dramatically (Coladarci, 2003). Additionally, meeting the one percent special education requirements is also formidable due to the size of enrollment (Kusler, 2004).

Finance poses another potential hurdle for rural schools. The issue of funding, especially in this time of state funding reduction, results from the practice in many states of basing funding levels upon local property taxes, figured by using attendance data. Also the small number of students in rural schools and the lack of a local tax base exacerbate the problem (Beeson, 2001). Finally, rural communities are, sometimes, hesitant to fund an education for young people who will join the increasing number of students who leave the community after finishing school (Carter, 1999; Goetz & Rupasingha, 2003).

The superintendent/principal in rural schools meets additional challenges. They must assume numerous roles shared by several individuals in larger schools (Buckingham, 2001). Rural school leaders struggle with isolation (Buckingham) and low salaries (Beeson, 2001). Also, teachers in rural schools are less likely to meet the mandate for "highly qualified teacher" (U. S. Department of Education, Department of Elementary and Secondary Education (USDESE), 2002). Some studies identified low salaries and stress related to working conditions to be significant in rural schools (Abel & Sewell, 1999).

Conversely, the research identified benefits to leaders and teachers in small, rural communities. Among the positive aspects cited were the opportunities to develop close relationships among the staff, students and community. Such interactions contribute to development of social capital (Beaulieu & Israel, 2005).

The literature also described varied interests and approaches to the K-8 school. One focus included viewing the K-8 configuration as it affects the middle school concept (Hough, 2003; Tadlock & Barrett-Roberts, 1995). Another viewed the K-8 school as an avenue of school improvement in the inner city school (Patton, 1998).

Additionally, rural schools educate an increasing number of migrant workers, immigrants and families in poverty (Beeson, 2001). This shifting population focuses on another potential barrier to achievement: poverty.

Poverty

Beginning with the 1965 Elementary and Secondary Education Act (ESEA) and ending with the current authorization of NCLB, several programs have addressed the issues of educating children from poverty (McCall, Kingsbury & Olson, 2004). However, the successes of programs such as Head Start are inconsistent (Houston, 1997).

Since the student population of many Missouri K-8 schools exceeds the national description of 50% or more students eligible for free or reduced lunch (USDESE, 2002), the need to examine the impact of poverty on rural students was necessary. Current literature identified several learning difficulties that plague children in poverty, including more likelihood of learning disabilities, low test scores and more special needs (Missouri Kids Count Data Book Online, 2004). The increasing number of immigrants, migrant workers and minorities has also had an impact on the rural community. In fact, the magnitude of poverty can overpower some small rural schools (Beeson, 2001).

Several investigations, however, show potential for improvement. Marzano, Pickering and Pollock (2001) have identified strategies that improve learning for all students, including children in poverty. In addition, teaching techniques to fill the learning gaps of children in poverty have been developed (DeVol, 2004; Payne, 2005). Additional research, including a meta-analysis of over 69 studies looking at the effects of leadership on student achievement, emphasizes the effects leadership can have on student achievement (Marzano, Waters, & McNulty, 2005). It is through this lens of leadership that the barriers of rural schools and poverty are viewed.

Leadership

Research over the past decade has described effective leadership essential to school improvement. Experts in leadership theory support the notion that effective change within a school building comes only with the leadership of the building principal (Cotton, 2003). Yukl (2006) suggested that principals leading change forge a vision and build capacity for change by working with the stakeholders to establish and work toward a shared vision. Principal leadership creates the context in which such change can flourish by focusing on that shared vision (Bolman & Deal, 2002).

Additionally, leaders in times of change assume diversified roles (Haun, 2003) and maintain focus (Lashway, 2002a). Successful change agents facilitate and encourage a collaborative climate (Elmore, 2002). And with the high stakes accountability, the attention is now on the building rather than the district (Elmore, 2002), thus principals need to prepare themselves as instructional leaders to have a positive impact on student achievement (Fullan, 2001; Hedgpeth, 2000). Early on it was found that principals in high performing schools spent 81% more time practicing instructional management than those in average schools (Ellis, 2004; Lieberman, 1995). Also, teaching practice can be improved by collaboration and leadership (Smith, 1998, Yukl, 2006) and focusing on organizational coherence instead of the test leads to improved student achievement (Elmore, 2002). Two theories that help explain

the phenomenon of such leadership are transformational (Bolman & Deal, 2002) and collaborative (Eaker, DuFour, & DuFour, 2002).

Transformational Leadership. Both the motivation (DuFour & Eaker, 1998; Yukl, 2006) and caring of such a learning organization can result from transformational leadership, which motivates and transforms followers to meet the needs of the organization rather than their own self-interest (Yukl, 2006). In addition, consideration of the human factor, or soul, can be a powerful force leading to improvement (Bolman & Deal, 2002; Lashway, 2002b).

Collaborative Leadership. Caring leaders focus on the child and his/her well-being at the center of school improvement (Bolman & Deal, 2002). This child-centered focus leads to a collaborative spirit (Baker, 2004) in which teams develop a collaborative culture (Eaker, DuFour, & DuFour, 2002). Effective teams build an environment in which collaboration can occur (Eaker et al., 2002), and collaborative learning results (Danielson & McGreal, 2000; Darling-Hammond, 1998). Team learning is essential for growth and encourages student achievement (Cervero & Wilson, 2006; Kanter, 1994). Finally, effective leaders can develop collective leadership in which they engage their staff to share leadership roles encouraging shared responsibility for improvement (Chirichello, 2002).

These leadership theories identified in the literature review became the lens through which student achievement in a small rural school with high incidence of poverty was viewed. The interrelationship of these constructs along with rural school and poverty informed this inquiry resulting in the following overarching question: How do small, rural Missouri K-8 schools with a high incidence of poverty consistently meet Distinction in Performance designation?

Limitations and Assumptions

One limitation of the case study design is the notion that such a study is less credible than quantitative studies since it evolves from "apparently subjective findings based on interviews and observations" (Fowler, 2000, p. 312). A second limitation is generalizability, as this study focused on the adult leader, teachers, staff and board of education from one K-8 school in Missouri. To address these limitations the researcher was cognizant of the validity and reliability limitations of a case study and thus gathered data from a variety of sources. The researcher conducted all the interviews and analyzed the materials and artifacts for consistency. To insure the integrity of transcription, the written scripts were returned to the interviewees for verification prior to inclusion in the study and any discrepancies noted by the participants were corrected. The generalizability of this case study, which was written with detailed description, may be determined through other studies "to establish the representativeness of what they have found" (Bogdan & Biklen, 1998, p. 32).

Methodology

Population and Sample

The researcher developed a purposeful sample determined by a series of filters to identify the school and leader that would best represent all the theoretical underpinnings and questions addressed in this project. The filters used included the following: small rural school, student achievement, consistent leadership and poverty level. The first filter of rural schools resulted in a set of 75 kindergarten through eighth grade (K-8) schools in the state. The second filter was the state designation of Distinction in Performance for the school years 2000-2001, 2001-2002, 2002-2003, 2003-2004, and 2004-2005. Eleven K-8 schools achieved this honor.

The next set of filters addressed leadership in each of these schools. The first leadership filter considered the roles of superintendent and principal in the eleven school districts already identified. In four of the identified schools, two individuals assumed the role of principal and superintendent. In the remaining seven schools, the same individual served as both principal and superintendent. The schools with one administrator were selected to provide a clear picture of an individual leader. The next level of selection addressed the longevity of the administrator in the district. There were only three of the seven remaining administrators who had served in their district for more than 10 years.

The final filter for these three schools was the poverty level for the years 2001-2005 as determined by the free and reduced lunch percentages for the district. Of the three remaining schools, only one qualified as a school of poverty with over 50% free and reduced lunch percentages for each of the designated years.

Instrumentation

Individual interviews and focus groups, as well as analysis of documents and artifacts from the school provided the data. The variety of participants selected permitted the use of situational analysis, which is considering the information from perspectives of all participants (Bogdan & Biklen, 1998).

The researcher visited the school site gathering perceptual data and conducting interviews. The superintendent/principal and volunteer teachers from each level, primary, intermediate, upper, were asked to grant individual interviews. Two focus groups were formed containing representatives of each of the following groups: additional certificated and non-certificated staff, parents and the board of education. The participants received transcriptions of the interviews for verification of accuracy. Official documents from Missouri Assessment Program (MAP) and Missouri School Improvement Process (MSIP) served as a basis for analyzing demographics and student achievement. Internal documents including the MSIP Plan

and Professional Development Plan served as verification that the school was doing what it claimed to do in the documents. Finally, artifacts, including old and current news articles and photographs of the school, in addition to field notes provided rich background.

Data Analysis

Bogdan and Biklen (1998) caution qualitative researchers to develop an adequate system to sort data. The researcher visited the school site a minimum of three times gathering perceptual data, which included audiotapes of interviews and focus groups. In addition to the tapes, careful field notes organized the data by identifying the person, item and site of each interview (Bogdan & Biklen, 1998). In the case of the focus groups, field notations at the beginning of each participant's answer helped identify the individual contributions to the conversation.

Coding followed the guidelines described by Bogdan and Biklen, (1998). Resulting codes represented overarching categories. The first category was situation codes, which provided information about the setting, context, and shared rules and norms. Next, activity codes identified the exercises and routines of the school. Strategy codes revealed how school personnel accomplished a variety of things from student achievement to the daily functioning of the school. Finally, relationship codes indicated the multiple interactions among stakeholders of the school (Bogdan & Biklen, 1998).

The researcher also studied official external and internal documents. The school's most recent MSIP Review identified strengths and weaknesses in light of state accountability. The school's MAP scores for the past five years showed the level of student achievement on the state assessment. Department of Elementary and Secondary Education (DESE) data indicated the high level of poverty existing in the families of students. Internal documents reviewed included the Professional Development Plan, the school schedule and notices and notes from faculty meetings. These documents allowed triangulation with data from interviews and field notes. Several artifacts, including old school records, photographs, and newspaper articles served as a comparison to the official documents and to the perceptual data gathered during personal visits to the school site. These combined data provided material for rich description of the K-8 school. The external and internal documents, as well as the artifacts, were matched to the appropriate codes for analysis to support or contradict the data (Bogdan & Biklan, 1998) and provide for triangulation (Fowler, 2000).

Findings

Demographic Data

The Leader, who shall be named Mrs. Hudson for the purposes of this study, served in both capacities as principal and superintendent of what will be called Twin Lake School. After teaching for the district part-time for two years and full-time for one year, she became superintendent/principal and has served in that capacity for eleven years. Over the years, she actively participated in professional organizations and served as an officer in a state educational association at the time of this study.

Twin Lake School represents a unique rural school, as it is situated five miles from the nearest town. The district had a population of 320 residents and served 187 K-8 students with 35 additional students enrolled in the pre-school and Parents as Teachers programs. Twenty-two certified staff served the district. Teachers and parents interviewed described the rich history of the district. The original building was constructed in 1908. When that structure was destroyed by fire in 1952, one of the current buildings was built in its place. Since then, there have been several additions to accommodate the growing enrollment and increasing functions. The Missouri State Board of Education designated the School District as Distinction in Performance each year for the five school years from 2000 through 2005. This distinction is largely based upon student achievement on the state MAP assessment. In addition, Twin Lake also had an enrollment with a high percent of students eligible for free and reduced lunch for those same five years.

Although the school is not located in a town, the surrounding community influences the school and its programs. There are no industries, but several small businesses and farms raising cattle, dairy cows, or row crops dot the area. The board member who participated in the focus group mirrored many in the community. He and his father grew up in the area, went to Twin Lake School and remained a part of the community. School personnel and community members know each other and these relationships developed over several years of school attendance by fathers, mothers, sons, daughters, brothers, sisters, and cousins.

Summary of the Findings

Initially, a wide net was cast, but as the process continued, materials and questions narrowed to reveal specific themes (Bogdan & Biliken, 1998). The themes included the following: understanding the rural school with high incidence of poverty, setting expectations and demanding accountability, providing necessary resources, and building a collaborative community. The grand tour question focused this study. What does a superintendent/principal do on a daily basis to support student achievement? An analysis of the themes suggested

answers to the initial guiding questions. Those questions included:

1. What leadership qualities does a principal-superintendent in a small rural school possess that lead the school to consistent achievement?

Educational theorists agree that an effective leader's passion, integrity and courage lead to forging a vision, a necessity for continued improvement (Bolman & Deal, 2002; Yukl, 2006). Visiting with Mrs. Hudson, the researcher observed her passion for success of the students at Twin Lake School and her honesty and courage to do what was needed to engage the faculty. The board member, faculty, staff and parents agreed that Mrs. Hudson focused on the school's vision of continuous student achievement. To accomplish this goal, she held high expectations for herself, her staff and the students. Such expectations were needed to effectively work with students, especially those from poverty (Payne, 2005).

As the leader, Mrs. Hudson served as a role model by keeping abreast of educational research and sharing her knowledge with the faculty as a strong instructional advocate (Bernhardt, 1999, Elmore, 2002; Lashway, 2002a). Her appraisal of teaching was thorough and she honestly shared her observations with individual staff to improve instruction and to maintain the focus on student achievement.

The superintendent attributed achievement to "the consistent goals, the work ethics and, I do think, our present curriculum. We are trying to align everything to the assessment."

2. What processes does the leader implement that lead to teaching and learning?

Mrs. Hudson initiated several processes to improve teaching and learning. To gain an understanding of what steps were needed to accomplish the goal, a realistic description of the status quo and a thorough analysis of available data is essential (Bernhardt, 2001; Haun, 2003; Schmoker, 2004). Evaluation of progress was an ongoing process. For the individual student, Mrs. Hudson emphasized the significance of reading as it relates to achievement. She demanded timely assessment to determine each student's reading level to enable teachers to plan the steps that were needed to help the child improve reading skills. In addition, she also hired retired teachers to work, specifically, with all students from the primary to middle school level who showed a reading deficiency. The focus was apparent. Finally, all teachers were expected to assess all students within the first two weeks of school to plan teaching strategies to meet the identified needs.

Another process included the analysis of MAP data as soon as the information was available. Mrs. Hudson again hired substitute teachers to allow the faculty time for data analysis and planning to overcome any identified deficiencies. Due to the size of the school, teachers noted that strategies could be implemented immediately since there was a direct line of communication to all faculty and staff without the administrative levels which must be navigated in larger school districts.

As an instructional leader, Mrs. Hudson championed professional development and served as a role model by studying educational research through reading and attending educational meetings. She consistently shared such information with faculty and staff. Also, she encouraged teachers to participate in state initiatives such as MAP training; teachers were expected to share information when they returned to the district, either through regular meetings or early release time. Such release time allowed teachers to share information and develop action plans, which Mrs. Hudson monitored for progress. The same process was used to learn and share current instructional information by taking advantage of grant opportunities, such as a National Science Foundation Grant at a regional center.

Finally, given their school population, the majority of whom reside in poverty, the faculty took steps to help the children transition from their background (Bruffee, 1999). Mrs. Hudson, the faculty and the staff all realized their significance as role models; therefore, they presented themselves as professionals in dress and demeanor. Also, Mrs. Hudson and the faculty supported an after school program that offered the students opportunities to select from a variety of classes; students also participated in a varied program of extra-curricular activities led by faculty. In addition, field trips were carefully selected to broaden the students' experiential base.

3. What structures does the leader implement that lead to teaching and learning?

Three structures implemented by Mrs. Hudson included the Placement Alternative Classroom (PAC) room, the pre-school, and the schedule. The PAC room served two purposes for students creating discipline problems. First, students who were sent to the PAC room received counseling as a measure to change their behavior. Also, they continued learning with the assistance of the fulltime teacher who staffed PAC. Prior to implementation of PAC, students were suspended from school and sent home, where the learning did not continue. Now while the student in PAC received instruction and counseling, the classroom teacher concentrated on working with the students who remained in class.

Second, the preschool, which was funded by a grant, enabled Twin Lake School to provide a basic foundation for future students. This foundation focused on continued achievement of the students in the program and began to build positive relationships with the parents and families of enrollees.

Finally, after years of trial and error, Mrs. Hudson and the staff developed a schedule that set aside specific blocks of time for the core content areas. The combination of block and traditional schedule resulted in protected time for academics encouraging staff and students to focus on teaching and learning.

4. How does the leader establish collaboration among staff?

Effective leaders provide open vertical channels (Schein, 2002; Yukl, 2006). Teachers, parents and staff described their comfort in coming to Mrs. Hudson with questions or ideas. They felt welcome. These communication avenues also improved professional growth (Sandholtz, 1998). One formal avenue for communication that Mrs. Hudson implemented was the Pod meetings. One Pod included the elementary teachers and one Pod was made up of all middle level teachers. One teacher led each Pod and was empowered (Bolman & Deal, 2002) to share information from Mrs. Hudson and to conduct meetings regarding improved instruction. Information about state initiatives, MAP updates and educational challenges represent a few of the topics shared. Each group brainstormed to solve problems and to develop more effective teaching strategies (Nonaka & Takeuchi, 1995). The Pods met weekly and Mrs. Hudson met monthly with the entire faculty, which relieved some of the isolation often experienced by teachers (Glickman, 2002).

Also, Mrs. Hudson followed specific procedures for evaluation that encouraged communication. She was visible throughout the school and was forthright and specific in her evaluations of the teachers. At the end of each year, she conducted exit interviews to discuss each teacher's strengths and weaknesses in determining training needs for the following year. She also provided instructional materials that the teachers requested if the request accompanied justification linking to student achievement; teachers were expected to use each item in a timely manner to improve student learning.

Most importantly, Mrs. Hudson served as a role model for her faculty, who described her as approachable, hardworking and fair. She recognized the high level of work required of the teachers and saw that teachers received small gifts of appreciation, which included gift bags provided by the board of education or time to attend to personal matters.

5. How does the leader establish collaboration among the community and board of education?

A collaborative spirit results when the focus remains on the child (Baker, 2004). Such a spirit permeates the Twin Lake School. The school has a long history in the community; therefore, it enjoys the support of several generations of learners. The school appeared to be the educational, social and cultural life of the community. Parents have an open invitation to eat lunch with their children and were welcome to visit the school and their children's classes. Community members, also, attended a variety of school events.

The board of education and the superintendent shared an understanding of their specific roles, and each took the responsibility for assuming those roles. The superintendent encouraged open communication with local papers and legislators, highlighting the academic success of Twin Lake School. The framed Distinction in Performance awards are prominently displayed in the hall and welcome visitors as they enter the front of the school.

A summary of the findings of this study suggested ten leadership practices that contribute to continued improvement. These practices on the journey to student achievement, which are illustrated in Figure 1, included the following: develop a focus and vision, set expectations, serve as a role model, conduct evaluations, analyze data, provide resources, build collaboration, empower staff, build community relationships, and maintain integrity.
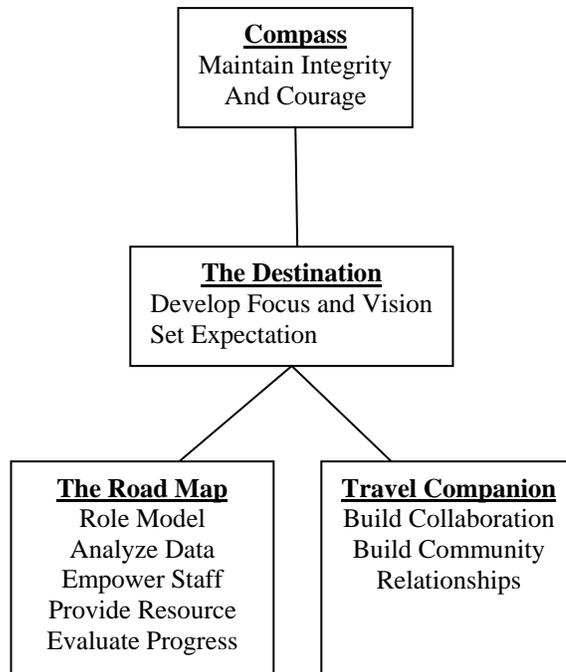
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Figure 1. Journey to student achievement using leadership practices.

Implications for Practice

Although research addressing the leadership characteristics that lead to student achievement abound, many previous studies focused on urban locations or grade configurations other than the K-8 school. Since this case study focused on a K-8 rural school with a high incidence of students who come from poverty, several questions surfaced that suggest future studies and implications to inform educational leadership training, support, and practice.

As states grapple with funding shortfalls during a time of high accountability for student achievement, knowledge of leadership practices that enhance learning could result in informed decision making. Questions of consolidation raise local debate about the effects of such practices upon the learning of students and how that will change in a new configuration. Implications from this study suggest the benefits of the bounded rural, K-8 school with strong leadership. Further study is needed for verification.

Some previous studies suggested that leaders in schools may not possess the knowledge, skill and training to implement effective change (Elmore, 2002). Knowledge of effective leadership characteristics could impact leadership training in schools of education as well as training and support for beginning administrators from state leadership programs or practicing mentors. Knowledge of effective practices of rural administrators especially affects leaders in small schools in rural communities.

Equally important is the increasing number of children who come from poverty and the growing body of research about educational needs of such children. The benefits of the small, family atmosphere created in K-8 schools can serve as a potential model for schools as they strive to implement learning communities in their school settings.

Summary

This case study revealed snapshots of Twin Lake School District from varied vantage points viewed through the leadership lens and focused on student achievement. Data collected during this study enhanced the details of the snapshots. Twin Lake School enjoys a long history, with some families attending for three generations. Despite the isolation of the location and the high incidence of poverty, the school showed continuous improvement academically. Although a myriad of factors contribute to the school's Distinction of Performance designation, the superintendent/principal encouraged a culture of high expectation and aligned those factors to point at the same target: improved teaching and learning.

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