

CHAPTER THREE

DESIGN AND METHODOLOGY

School-corporate partnerships have existed throughout the United States for over one hundred years. As a result of financial constraints facing schools and districts in the past few years, school-corporate partnerships are becoming prevalent as a means by which to acquire goods and services they would not be able to afford otherwise. Given the expense of cutting-edge technology, partnerships between schools and businesses and corporations that specialize in technology are becoming even more vital in the quest to remain competitive in today's educational market. The purpose of this study was to explore two aspects of school-corporate technology partnerships for which there is limited research: *how* administrators think about school-corporate partnerships and *what* they consider when entering into and maintaining school-corporate partnerships.

This chapter describes the qualitative research design and methodology used to explore those two aspects of school-corporate partnerships. Interviews were the primary research method used to gather insights into the dynamics of school-corporate partnerships. This chapter also includes the research questions that guided the study, the research instruments used to gather data, the selected sample, the researcher's role in the study, the data collection process, and data analysis.

Research Questions

The specific questions that guided the research are as follows:

1. What criteria did school administrators consider when entering into their school-corporate partnership?
2. What policies and/or guidelines did school administrators consult when entering into their school-corporate partnership?
3. What do school administrators perceive as the benefits received as a result of their school-corporate partnership?
4. What do school administrators perceive as the costs incurred as a result of their school-corporate partnership?

RESEARCH DESIGN

The researcher chose to conduct a qualitative study for several reasons. First, qualitative data is rich in description of people, places, and conversations, which are not easily handled by statistical procedures. Second, qualitative research questions are formulated to investigate topics in context and are concerned with understanding behavior from participants' own frame of reference rather than through hypothesis formulation (Bogdan & Biklen, 1992). Third, qualitative methods are utilized because they are more adaptable to dealing with multiple realities. Qualitative methods expose the interaction between the researcher and the respondent and make it easier to assess the extent to which the phenomenon is described in terms of the researcher's own stance (Lincoln & Guba, 1985). Guba and Lincoln maintained that "qualitative methods are also more sensitive to and adaptable to the many mutually shaping influences and value patterns that may be encountered" (p. 40). According to Bogdan and Bilken (1992), the best-known types of qualitative research are participant observation

and in-depth interviewing. In this study, in-depth interviewing was the dominant strategy for data collection.

Lincoln and Guba (1985) outlined several characteristics for doing qualitative research. Because the researcher was utilizing in-depth interviewing as the primary method of data collection, the researcher used herself as the primary data-gathering instrument because, according to Lincoln and Guba (1985), "it would be virtually impossible to devise a priori a nonhuman instrument with sufficient adaptability to encompass and adjust to the variety of realities that will be encountered;" (p. 39) as only the human instrument is capable of grasping and evaluating the meaning of the interaction. In this study, the researcher interviewed respondents via telephone to gather in-depth data regarding how administrators think about school corporate partnerships and what they think about when entering into the partnerships.

The researcher utilized intuitive or tacit knowledge to gain insight into the perceptions, attitudes, and opinions of school administrators toward their partnerships as they engaged in interactive conversations. Lincoln and Guba (1985) maintained that intuitive or tacit knowledge is recognized as a legitimate means of data collection "because often the nuances of the multiple realities can be appreciated only in this way" (p. 40), and tacit knowledge reflects the value patterns of the researcher more fairly and accurately.

As this qualitative research was being formulated to investigate topics in context rather than through hypothesis formulation, a grounded theory approach to generating theory was used. The idea behind grounded theory surfaced in

1967 when Barney Glaser and Anselm Strauss published *The Discovery of Grounded Theory*, which set a precedent for a different way of doing social research; one with its own distinctive goals and methodology. Grounded theory was defined by Glaser and Strauss as “the discovery of theory from data.” Glaser and Strauss proposed to use procedures for generating theory through research in terms of the usual phases of the research process (Dey, 1999). These procedures for generating theory are discussed in the data analysis section of this chapter. As Glaser (1995) noted, the grounded theory approach is suitable for an investigation of synergy in human relationships: “most researchers would agree that human interaction is a dynamic process which is dependent on an exchange of thoughts, ideas and/or feelings between two or more people” (p. 125).

To generate the grounded theory the researcher utilized two conceptual frameworks which lend themselves to qualitative research. These two frameworks, critical consciousness and political economy, used to analyze the data and generate the theory, are explained in the following section.

Conceptual Frameworks

While there is a plethora of literature on how business involvement in education contributes to social efficiency, little is known about how school administrators actually think about the contributions to educational efficiency or other aspects of business involvement in education, including the financial, educational, political, and ethical aspects. Because business involvement is becoming more prevalent in schools, particularly due to funding constraints, it is

important to focus on the epistemological aspect of partnerships. Hamlyn (1994) defined epistemology as “embodying a certain understanding of what is entailed in knowing, that is, how we know what we know” (p, 242). Epistemology, he explained, involves dealing with the nature of knowledge, its possibility, scope, and general basis.

Critical Consciousness

One framework used in this study for structuring an investigation into the epistemology of school administrators with regard to school-corporate partnerships is Freire’s (1973) model of critical consciousness. Freire (1973) analyzed conditioned levels of understanding and developed a model of development leading to critical transitivity. Critical transitivity enables people to reflect on themselves, their responsibilities, and their roles in society, resulting in a development of power that leads to an increased capacity for choice (Freire, 1973).

Freire’s model of critical consciousness includes the following stages of a continuum: intransitivity, semi-intransitivity, naïve transitivity, and, finally, critical transitivity. This continuum represents the degree to which administrators consider criteria, consult guidelines and understand the benefits and costs, and the extent to which they progress through a systematic sequence of decision-making steps when entering into partnerships. For example, if an administrator fails to classify and define the school’s problem and conditions, rarely consults any published guidelines, or does not consider costs and benefits prior to entering into a school-corporate partnership, the administrator would likely fall

toward the intransitive end of the continuum. Without consulting guidelines such as those published by ASCD, administrators may enter into a partnership without considering such criteria as whether or not the partnership is consistent with the values, goals, and objectives of the school or whether or not the partnership responds to a clearly-understood educational need of the school. On the other hand, an administrator who actively defines the uniqueness of the school's problem and sets boundary conditions, seeks out published guidelines and criteria, and considers, for example, whether or not the corporate involvement is structured to meet an identified education need as opposed to a commercial motive, would likely fall toward the critical transitivity end of the continuum.

This study was designed to examine how school administrators think about these aspects of school-corporate partnerships and to determine where school administrators tend to fall along the continuum. By examining critical consciousness issues and determining where administrators fall on this continuum, this study examined whether or not there is the need for more global awareness of guidelines and for decision-making policies for administrators who engage in school-corporate partnerships. The levels of critical consciousness in this study are distinguished by the levels of awareness of school administrators. Critical intransitivity is the least desirable level of awareness, while critical transitivity is the most desirable level of awareness. According to Freire (1973),

As men amplify their power to perceive and respond to suggestions and questions arising in their context, and increase their capacity to enter into

dialogue not only with other men but with their world, they become 'transitive.' (p. 17).

Freire believed that transitivity of consciousness is what makes man "permeable."

Critical Transitivity

A critically transitive consciousness is characterized by depth in the interpretation of problems, by understanding causality, by testing one's findings, and by openness to revision. It also is characterized by the ability to avoid distortion of problems and preconceived notions when analyzing problems, ownership of responsibility, and the practice of reflective dialogue. Critical transitivity is characteristic of authentically democratic societies and corresponds to highly permeable, interrogative, and dialogical forms of life. This is in stark contrast to silence and inaction (Freire, 1973). A critically transitive administrator, then, is one who weighs democratic principles with the need for funding; considers whether or not the materials or project should be funded publicly or through private sources; and considers the ethical values of the companies with which he or she will do business.

Consumer awareness ultimately leads educators to become more critically transitive people who, according to Shor (1992), "make broad connections between individual experience and social issues and synthesize personal and social meanings with a specific theme, text, or issue" (p. 127). Examining the extent to which school administrators acknowledge perceived costs and benefits

of school-corporate partnerships, and how they use criteria with which to assess the viability of a partnership, reveals their degree of critical transitivity.

To become critically transitive, educational personnel need to begin questioning the veracity of national goals assumptions and businesses' use of these goals, which ultimately elevate capitalistic pretense (Boyles, 1998). Critical transitivity means overcoming consumerist lethargy and disposing of passive acceptance and reliance on imagery. Critical transitivity requires authenticity and understanding of the connections between disparities of power and privilege, their causes, and potential solutions (Boyles, 1998). In other words, to become critically transitive means to continually think of the repercussions of choices related to utilizing corporate-sponsored curricula and curricular materials.

Critical transitivity can best be understood in comparison to the other three levels of awareness on Freire's continuum – intransitivity, semi-intransitivity, and naïve transitivity. Intransitivity means noncritical in action and repudiates the power of individuals to change their existences. Boyles (2001) uses the example of a teacher who claims "I can't speak out about school-business partnerships because my school might lose funding" as an example of an individual powerless to change her existence. According to Boyles, "students and teachers who critique school-business partnerships rather than seek them out and/or participate in them without question, are demonstrating, in a minor form, what critical transitivity entails" (Boyles, 2001, p. 65).

Freire (1973) saw semi-intransitivity of consciousness as a state in which a person's sphere of perception is limited and impermeable to challenges outside

his realm of explanation and falls prey to magical explanations because he cannot apprehend true causality (Freire, 1973). Semi-intransitivity is characterized by individuals who see the world as changeable, but only in the short term. For example, businesses may donate money, time, or materials to school but teachers do not ask whether the businesses are getting tax credits, free advertising, or other perks as a result of the donation. Boyles (2001) maintains that, “while both intransitivity and semi-intransitivity are visible in schools, Freire’s ultimate goal - critical transitivity - is rarely evidenced” (p. 65).

Naïve transitivity is the initial state of critical consciousness. This state is characterized by an over-simplification of problems, a lack of interest in investigation and a developing capacity for dialogue. Freire (1973) maintained that for naïve transitivity to evolve toward critical transitivity requires an active dialogue concerned with social and political responsibility. People would become critical, enter reality, and increase their capacity to make choices as well as to reject the prescriptions of others

Shor (1992) expanded the notions inherent in Freire’s model and summarized critical consciousness as four qualities: 1) power awareness, 2) critical literacy, 3) permanent desocialization, and 4) self-education/organization. These four qualities can be associated with the guidelines for corporate involvement published by CACE and ASCD. Power awareness, Shor maintained, is discovering how power and policy-making interact in society, how economic policy affects daily life, and how one can insert oneself into cooperative action to make change. Administrators have the power to weigh the educational values of

the partnership against political, ethical, social, and financial values and determine the extent to which the partnership supports the goals and objectives of the school without compromising the school's integrity. Cultural literacy entails thinking in-depth about books, statements, policies, commercial messages, political propaganda, existing authority, and traditional relationships. It also entails exercising a curiosity to understand the root causes of events and using language to create a deep meaning of discussion. Administrators must ensure that corporate involvement meets an identified educational need, not a commercial or purely financial motive, and must evaluate corporate partnerships for educational effectiveness on an ongoing basis.

Permanent desocialization is understanding and challenging regressive values, action, and speech, and nurturing a passion for justice and concern for the environment, for the community, and for public life. Administrators must ensure that educational values are not distorted in the process of fulfilling a financial need and must continually strive to protect the welfare of their students and the integrity of the learning environment.

Self-education/organization refers to knowing how to study critically in groups or individually and how to find out about an issue or a subject. Self-education/organization entails the development of educational projects coordinated with political groups, voluntary associations or social movements and using critical reflection as a basis for cooperative action in society. (Shor, 1992). Administrators must continually evaluate the partnership with respect to the costs incurred and benefits received. They must also enter into partnership

agreements only after full discussion among participating school staff, parents, and the prospective corporate partner and must ensure that any agreements are openly-available public information.

School administrators have a choice in whether or not they enter into particular corporate partnership. This choice is influenced by the educational, financial, social, political, economic, and ethical pressures exerted both internally and externally to the school. These pressures represent the costs and benefits of school-corporate partnerships. One example of the ethical and economic pressures of reliance on partnerships is that of commercialism, which was discussed at length in the previous chapter. Two examples of the social, educational, and political pressures that increase the reliance on partnerships are school choice and student accountability, both of which are described in detail in the following section. How administrators think about and weigh the internal pressures of school finances and education against the external social, educational, economic, political, and ethical pressures causes them to fall along a continuum of critical consciousness.

Political Economy

Although Freire's model of critical consciousness provides a good model for framing *how* school administrators think about school-corporate partnerships, another theoretical model is needed for thinking about *what* school administrators think about when considering school-corporate partnerships.

History of Political Economy

The term political economy first emerged in the 18th Century to “help people understand and cope with a dramatic change in the system of want satisfaction, both in the nature of wants and in the manner of production and distribution of goods for satisfying them” (Caporaso & Levine, 1992, p. 1). Political economy had replaced the older term ‘economy’ because of the degree to which outside sources began to dictate the nature of want satisfaction. The term economy referred to the fact that, as wants emerged, the things that satisfied them were produced in the household. The newer term, political economy, referred to the fact that economic affairs were now a function of sources outside the household, such as the state. According to Levine and Caparoso (1992), the emergence of political economy brought with it a debate over the responsibilities of the state with regard to the economy, and the debate continues even in the present. In three different centuries, classical economists such as Adam Smith, Karl Marx, John Maynard Keynes and Milton Friedman have expressed their ideas relating to political economy.

In the 1700s, “Adam Smith saw the rise of civilized society as the result of profit-seeking behavior rather than of any plan known to and instituted by a political process or public authority. The transition from the ‘savage state of man’ to civilized society was, for Smith, the historical work of capitalism” (Caporaso & Levine, 1992, p. 34). This is illustrated by Smith’s concept of the “invisible hand,” a metaphor for the pursuit of self-interest. One assumption at the root of market ideology is that self-interest is the primary motivator of individuals’ choices, and personal material reward is the primary goal (Engel, 2000).

In the 1800s, Marx took Smith's idea much further, relating the changes in methods of production, social relations and ways of life as the "unintended consequences of the pursuit of private gain" (p. 34). According to Negishi (2000), "the crux of Marxian economics is to explore the social relations between those who exploit and those who are exploited" (p. 17). In the early 1900s, the Keynesian approach to political economy summarized the notion of market self-regulation by noting that the market system will bring together wants and means so as to satisfy those wants to the extent possible given the means available to do so (Caporaso & Levine, 1992).

Two centuries after Smith's 1776 publication, *The Wealth of Nations*, economists Milton and Rose Friedman defined market ideology with regard to its proper role in society based partly on philosophy set forth by Smith in *A Wealth of Nations*. They outlined the duties for government, including the fact that government must protect the interests of those - and only those - who are unable to make free choices, a category the Friedmans limit to 'madmen or children' (Engel, 2000, p. 20).

Both politics and economics contribute to school administrators' decision-making process with regard to school-corporate partnerships. According to Hansen (2002),

Today there is growing interest in linking finance to school performance and student achievement. Political pressures for improved performance and accountability, as well as court mandates for funding levels that

guarantee adequacy, are pushing policy makers to reorient finance policies toward educational outcomes (Hansen, 2002, p. 34)

The recent reauthorization of the Elementary and Secondary Act of 1965, commonly known as The No Child Left Act (NCLB) of 2001, includes many components to promote gains in student achievement and to hold schools more accountable for student progress. States are mandated to develop and set their own standards for what students must know and learn for every grade. States are required to bring all students up to the proficient level on state tests by the year 2014 (Dotterwiech & McNeil, 2003). The No Child Left Behind Act also provides parents with choices with regard to their children's education. The federal law allows parents to choose alternate public schools if their child attends a school that the state deems either needs improvement or is unsafe (*Choices for Parents*). Another area of NCLB where emphasis and funding have increased significantly with the current reauthorization is educational technology. The NCLB Act has committed \$15,000,000 of the \$1,000,000,000 federal allocated for educational technology to a long-term study of technology and its effects on teaching and learning (Terrell, 2002). Two examples of political and economic mechanisms that influence technology partnership decisions directly related to the NCLB Act are school choice and accountability for student achievement.

School choice has become a major political issue in recent years and with it brings economic issues for schools. In addition to the federal law mandates, there are various other types of school choice policies, including magnet schools, open enrollment, charter schools, tax credits and deductions (Krueger &

Ziebarth, 2002). All of these school choice options have economic as well as political implications on schools. Krueger and Ziebarth (2002) maintain that “proponents of choice programs contend that the competition brought about by choice breeds greater accountability for results, improved diversity of schooling options and quality in both the public and private school sectors” (p. 3).

In June 2002, the U.S. Supreme Court ruled that tuition vouchers for private and religious schools do not violate the First Amendment’s establishment cause, which as Rotherham (2002) maintained, “put the school choice debate back where it belongs: the political arena.” While public-private school choice plans are consistent with market ideology and competition, the political and economic pressures of school choice have many school administrators competing for students and the money brought into the school by those students.

Chubb and Moe (1990), long-time proponents of school choice, argued that a free market approach will force schools to become more flexible and responsive to their clientele. They argued that a free market system will promote school autonomy and give parents greater control of school outcomes, because in order to stay in business, the school will have to satisfy its clientele. In some cases, such as the state of Minnesota’s state-wide initiative of school choice, the state’s per-pupil funding follows the student to the receiving district and ultimately the receiving school.

Technology is one of the areas by which parents and students judge a school’s worth when making a decision on what school to attend. According to Johnson (2005), Minnesota Association of Secondary School Principals

(MASSP) and many other education stakeholders are turning to reform strategies in the areas of smaller, more personalized learning communities, strong use of technology, a rigorous curriculum and seamless transitions from high school to higher learning. Parents and students will assess the hardware, software and technology curriculum to determine if the school is a viable choice. State-of-the-art technology, therefore, becomes a priority, especially for schools in districts whose policy includes school choice. With the major expenses that current technology incurs on school budgets, technology partnerships become increasingly necessary and important to administrators. There is increasing pressure to showcase cutting-edge technology as schools compete for students. Accountability for student achievement is another aspect in which technology plays an important decision-making role.

Research studies have begun to interpret data about student achievement and technology use. For example, a study conducted in Idaho was commissioned by the J.A. and Kathryn Albertson Foundation, Inc. to determine the impact of technology use on student achievement throughout the state of Idaho. The foundation has invested in technology for the schools in Idaho and commissioned the report to provide guidance for future funding decisions. The researchers found that in Idaho there are substantially and statistically significant effect size differences in the achievement gains of schools based on the use of technology. In terms of gains percentiles, they found high technology schools at about the 55th percentile, or five percentile points about the mean gain; while low technology schools gained at the 45th percentile, or five percentile below the

mean gain score (Ravitz & Mergendoller, 2002). This type of data that supports high technology use in schools will tend to influence the decision parents and students make when researching schools, which is another reason technology partnerships become a high priority for many school administrators.

Although there is a plethora of literature on school-corporate partnerships, most of that literature deals with the history of partnerships and describes how school-business partnerships have contributed to social efficiency. What is lacking in the literature is information on the critical consciousness of school administrators with regard to school-corporate partnerships. The data analysis of this study ultimately generated theory and conclusions regarding critical consciousness that have not been previously considered. The interview, the sole method of gathering data for this study, is discussed in the following section on methodology.

METHODOLOGY

This study involved collecting data through in-depth interviews with school administrators who are currently engaged in technology partnerships with businesses or corporations. The school administrators were purposefully selected through researching the Internet and practitioner-oriented educational technology journals for reports of school-corporate involvement.

Sample Selection

In this study, the sample consisted of a purposive set of 12 school administrators who were identified through researching the Internet and practitioner-oriented educational technology journals for reports of school-

corporate involvement. The technology journals that were researched included: *Scholastic Administrator*, *THE Journal*, *Journal of Research on Technology in Education*, *Journal of Computing in Teacher Education*, *Learning and Leading with Technology*, and *TechTrends for Leaders in Education and Training*. A full description of Internet sites, journals and companies researched are listed in Appendix A. Because the focus of this study is on current school-corporate partnerships, journal issues were limited to the years 2003 to 2005.

According to Bogden and Biklen (1992), a researcher chooses particular subjects to include in a study because they are believed to facilitate the expansion of the developing theory. The researcher selected the purposive sample of school administrators based on two criteria. The first criterion was that it was reported on the Internet or in a journal that the administrator's particular school was engaged in a partnership with a vendor, business or corporation. For example, in an article in the June 2005 issue of *Scholastic Administrator*, Heinze, Wheaton Shorr and Bolch reported, "For the last six months, the editors tromped through education industry trade shows and hounded anyone who could help us find top-notch schools and districts that in partnership with vendors are doing remarkable things with technology" (p. 31). The phrase, "in partnership with vendors" qualified the schools reported in this journal article to be included in the sample. The second criterion was that the principal who initiated the partnership reported on the Internet or in the journal article was still the principal at that school.

A letter was then sent to school administrators who reportedly are engaged in a school-corporate partnership related to technology. A copy of the letter can be found in Appendix B. The participants were selected as part of the study after the researcher contacted each administrator to confirm a willingness to participate in a telephone interview, and confirmed that the school is currently engaged in a technology partnership, and the principal who initiated the partnership is still the principal at the school. A willingness to arrange an interview served as consent to participate in the study. Hence, a separate consent letter was not sent to the 12 prospective participants.

Five days after the first letter was mailed out, the researcher attempted to contact each prospective participant to confirm consent and arrange an interview. The researcher successfully contacted 8 of the 12 in the sample, and all but one administrator consented to participate in the study. After three unsuccessful tries to call the other four administrators and one electronic mail attempt, to which there was no reply, the researcher sent out a second letter to those four administrators. Two of the four administrators contacted the researcher to confirm consent and arrange an interview. Following one more electronic mail attempt to the other two administrators, the researcher concluded that they were not interested in participating in the study. The response rate for the sample was 75%, as the researcher conducted 9 interviews out of a potential sample of 12.

The school administrators who were selected to be interviewed were sent a letter explaining the study. The letter informed the administrators that the researcher would be calling to set up a convenient time for the telephone

interview to take place. The interview consisted of 15 questions that allowed for follow-up questions and dialogue between the researcher and the administrator. In the study, the interaction between the researcher and the respondent was largely unpredictable in advance. The researcher in this study had the flexibility to adapt follow-up questions to the primary interview responses of participants in order to construct and confirm the meaning of their responses. The conversation that ensued was dependent on each school administrator's answers. The interviews were taped and transcribed by the researcher herself.

The Researcher as Interviewer

In this study, the researcher conducted all of the interviews with the selected school administrators. According to Kvale (1996), "in an interview conversation, the researcher listens to what people themselves tell about their lived world, hears them express their views and opinions in their own words, and learns about their views on their work situation" (p. 1). Qualitative research interviews yield data that allow the researcher to attempt to understand the world from the participants' points of view, to unfold the meaning of their experiences, and to uncover their lived world prior to scientific explanations. Through the interview process the researcher gathered the data that enabled her to ultimately generate theory and conclusions regarding the critical consciousness of school administrators with regard to school-corporate partnerships.

The researcher contacted each of the selected sample of school administrators by telephone and set up a mutually convenient time to conduct the telephone interview. Telephone interviews, as opposed to face-to-face

interviews, were chosen for this study because of the large geographic area of participants. According to Borg and Gall (1989), there are several significant advantages to telephone interviews; the principal advantage being its adaptability. The interviewer can make full use of the responses of the participant to alter the interview situation. The interview permits immediate feedback and allows for follow-up questions which can lead to more data and greater clarity (Borg & Gall, 1989).

Another advantage of telephone interviews is the reduced cost, especially when covering a large geographic area. A third advantage is that the researcher can select subjects from a much broader population than would be the case if the researcher had to travel to the location of each participant. Conducting the interviews from the same location using the same equipment is also an advantage in quality control and data entry, and many groups, such as business people, school administrators, and teachers, are easier to reach by telephone than by personal visits. Borg and Gall also found that, for threatening or sensitive questions, respondents' distortions were not as high for telephone interviews as for face-to-face interviews (Borg & Gall, 1989).

After the interviews had been arranged, the researcher used a telephone recording device as well as hand-taken notes to record the school administrators' responses. The researcher identified herself not only as a doctoral student engaged in research, but as a school administrator to establish a sense of trust and rapport with the respondents. The interview schedule and script are included

in Appendix C. Once all the interviews were complete, the researcher began the process of analyzing the data.

DATA ANALYSIS

Data analysis is the process of systematically searching and arranging the interview transcripts, field notes, and other materials that the researcher accumulates in such a format that the researcher can present her findings to others (Bogdan & Biklen, 1992). In this study, the qualitative data is presented in descriptive format using Glaser and Strauss' (1967) constant comparative method as a means of generating theory. The constant comparative method is a common qualitative technique used to generate grounded theory. According to Glaser and Strauss (1967), the constant comparative method of generating theory "is a continuously growing process – each stage after a time is transformed into the next – earlier stages do remain in operation simultaneously throughout the analysis and each provides continuous development to its successive stage until the analysis is terminated" (p. 105). The constant comparative method, explained, Jobes and Aldea, (1997),

assumes that people understand and can validly explain phenomena in their social world more effectively than other sources of information and interpretation. The validity of the technique depends on the ability of the investigators to gain understanding through conversation and observation with the people being studied (p. 295).

There are four stages to the constant comparative method: 1) comparing incidents applicable to each category, 2) integrating categories and their properties, 3) delimiting the theory, and 4) writing the theory (Glaser & Strauss, 1967). Each of these stages will be explained in the following section.

Constant Comparative Method

Stage 1 of the constant comparative method involved comparing incidents applicable to each category. This stage involved coding each incident within the respondent's data into as many categories of analysis as possible. According to Glaser and Strauss (1967), categories either emerge through this process or data emerge that fit an existing category. The data in this study was coded into four existing categories that corresponded to the research questions: criteria, policies and guidelines, benefits, and costs. Glaser and Strauss (1967) stated that the coding need not be done elaborately but should keep track of the comparison group in which the incident occurs. For purposes of organizing and coding data in this study, the researcher used a categorized table, described further in Chapter Four.

The basic, defining rule for the constant comparative method is that, while coding an incident for a category, it is compared with the previous incidents in the same and different groups coded in the same category. This constant comparison of the incidents begins to generate theoretical properties of the category (Glaser & Strauss, 1967). For example, while constantly comparing criteria that school administrators considered when entering into the partnership, some school administrators were highly articulate regarding what criteria they

considered, while other school administrators had considered very few criteria prior to entering into the partnership. This constant comparison enabled the researcher to generate themes which would ultimately reveal the degree of critical consciousness of school administrators with regard to school-corporate partnerships.

The second stage of Glaser and Strauss' constant comparative method involved integrating categories and their properties. In this stage, explained Glaser and Strauss, "as the coding continues, the constant comparative units change from comparison of incident with incident to comparison of incident with properties of the category that resulted from initial comparisons of incidents" (p. 108). Constant comparison causes the accumulated knowledge pertaining to a property of a category to readily start to become integrated, or related in many different ways, resulting in a unified whole. Finally, the category becomes integrated with other categories of analysis (Glaser & Strauss, 1967). For example, in this study, the researcher found that a school administrator who considered multiple criteria prior to entering a school corporate partnership could more easily articulate the benefits of the partnership. This example shows that the category of criteria becomes integrated with the category of as they relate to the school administrator's degree of critical transitivity.

The third stage of the constant comparative method involved delimiting the theory. This is the stage where the research began to conclude. At this point data no longer produce significant conceptual variations. Glaser and Strauss (1967) call this "theoretical saturation." At the point of theoretical saturation, the theory

begins to solidify such that major modifications become fewer and fewer as the researcher compares the next incidents of a category to its properties (Glaser & Strauss, 1967). At this point in the study, the researcher began to take out, or reduce, non-relevant properties while integrating details of properties into the major outline of interrelated categories. By reduction, Glaser and Strauss (1967) meant that the researcher may discover underlying uniformities in the original set of categories or their properties, and can then formulate the theory with a smaller set of higher-level concepts.

The final stage, stage four, of the constant comparative method involved writing the theory. At this stage, the researcher processed the coded data and formulated a theory. The results of the study and the writing of theory are presented in Chapters Four and Five of this study.

CONCLUSION

This chapter discussed the design and methodology of this study that enabled the researcher to explore the two aspects of school-corporate technology partnerships for which there is limited research: *what* administrators consider when entering into and maintaining school-corporate partnerships and *how* administrators think about school-corporate partnerships. The chapter explained the first three stages of the constant comparative method and how it was be used to generate theory of critical consciousness of school administrators with regard to these two aspects of school-corporate partnerships. The following chapter discusses in further detail the data collection, data analysis, and results from the participant interviews.