

A CASE STUDY IN COLLABORATION:
EDUCATIONAL AND INDUSTRIAL PARTNERSHIPS

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CHAPTER ONE

DESIGN OF THE STUDY

Governmental appropriations are the largest source of funding for public higher education in the United States today. Funding comes from federal, state or local sources. Since the mid 1970's, government appropriations has steadily decreased (Benjamin, 1995; Harvey, Williams, Kirshstein, O'Malley & Wellman, 1998; Hovey, 1999; Leslie & Fretwell, 1996; Losco & Fife, 2000; Lovell, 2000; Nair, 2003; Zusman, 1999). Cuts in government revenue has forced institutions of higher education to seek new innovative ways of doing business and new forms of revenue. Several authors have recommended the formation of collaborative partnerships with other organizations in an attempt to reduce the heavy reliance on governmental funding (Abrams, 1993; Baker, 1999; Bluhm, Drew, & Blankenship, 1992; Coburn, 1989; Gold & Charner, 1986; Johnstone, 1994; Leslie & Fretwell, 1996; Lovell, 2000; Meister, 1998). This form of reliance on governmental funding is known as Resource Dependency Theory (Pfeffer & Salancik, 1978; Pfeffer, 1987; Salancik & Pfeffer, 1974; Ulrich & Barney, 1984). This study analyzed the role that Resource Dependency Theory played in a newly created partnership between one institution of higher education, a K-12 school district and local business and industry.

The Problem

The phenomenon of reduced finances, whether modest or considerable, obviously serves to challenge institutions of higher education to fulfill the needs of their constituents (Hopkins & Wendel, 1997; Rouché & Rouché, 1999). The history of higher education in this country quite clearly reveals an equally extensive institutional reliance upon the numerous arms of the government for its funding—a fact supported by the tenets of *Resource Dependency Theory*. As funding linked with these governmental sources wanes, colleges and universities must seek alternative modes of funding in order to augment existing revenue as well as to deal with increasing complex needs (Pfeffer & Salancik, 1978; Salancik & Pfeffer, 1974; Ulrich & Barney, 1984).

Resource Dependency Theory addresses the complex problems of diminishing resources and increasingly complex needs by advocating specific sorts of cooperative partnerships between schools and other organizations (Abrams, 1993; Ancell, 1987; Feldman, 1987; Lovell, 2000; Pfeffer, 1987).

Purpose of the Study and Research Questions

The purpose of this study was to describe, analyze and interpret the principles and practices whereby an institution of higher learning collaborates with another entity. In this case a community college collaborates with a K-12 school district and with local industry and business.

The analytical lens, as it were, of this phenomenon was *Resource Dependency Theory*, the aim being to verify the double-edged concern over whether or not such partnerships are formed principally to offset declining

economic resources, or if the declining resources themselves principally shape such partnerships.

The research therefore answers the following questions:

- (1) Why *do* institutions of higher education collaborate?
- (2) What factors *contribute* to the formation of these partnerships?
- (3) What *benefits* are gained by the partners individually and collectively in partnerships?
- (4) What *obstacles* hinder or actually prevent collaboration? And
- (5) How useful is Resource Dependency Theory in explaining the formation of partnerships?

Orienting Theoretical Framework

In the modern era, higher education is expected to “do more with less” (Ancell, 1987; Campbell & Slaughter, 1999; Feldman, 1987; Johnstone, 1994; Lynton, 1984; Powers et al., 1988; Slaughter & Leslie, 1997; & Tynan, 2001). Institutions of higher education have therefore been seeking partnerships in order to gain funds that will supplement tuition and grant incomes (Ancell, 1987; Powers, et al., 1988). Resource Dependency Theory (Pfeffer & Salancik, 1978; Salancik & Pfeffer, 1974; Ulrich & Barney, 1984) addresses this phenomenon and is defined as reliance upon an external agency or entity for resources “Colleges and universities depend on state funding—it is virtually the only thing that keeps public institutions alive” (Leslie & Fretwell, 1996, p.173). “According to resource dependency theory, organizations respond most readily to the demands of outside organizations that control critical recourses” (Pfeffer, 1982, p.142).

Resource Dependency Theory was developed by James Pfeffer and Gerald Salancik in the 1970's in response to environmental uncertainty faced by organizations. This theory of management,

is based on the notion that environments are the source of scarce resources and organizations are dependent on these finite resources for survival. A lack of control over these resources thus acts to create uncertainty for firms operating in that environment. Organizations must develop ways to exploit these resources, which are also being sought by other firms, in order to ensure their own survival (Kreiser & Marino, 2002, p. 898).

"The key to organizational survival is the ability to acquire and maintain resources" (Pfeffer and Salancik, 1978, p. 2). The role that the external environment plays is critical to any organization as Pfeffer and Salancik (1978) elaborate,

The fact that organizations are dependent for survival and success on their environments for success does not, in itself, make their existence problematic. If resources needed by the organization were continually available, even if outside their control, there would be no problem.

Problems arise not merely because organizations are dependent on their environment, but because this environment is not dependable (p. 3).

Higher education relies quite heavily, and at times, exclusively, upon local, state, and federal agency funding. When these same agencies reduce their financial support of education, colleges and universities must look for alternative

sources within their own constituencies including businesses, industry, and students (Ancell, 1987; Feldman, 1987; Leslie & Fretwell, 1996). This is an example of the changing environment that Pfeffer and Salancik theorized. As noted in Pfeffer and Salancik's work (1978), "When environments change, organizations face the prospect either of not surviving or of changing their activities in response to these environmental factors" (p.3).

Students are a natural source for funding however business and industry are not. "Circumstances and events may encourage or permit the most unlikely alliances among groups that customarily are in opposition to one another or that seem to have relatively little in common" (Truman, 1951, p. 364).

This increased reliance upon business and industry sources to make up for the shortfalls in governmental funding may be seen also as attempts by institutions that are building such partnerships to obtain what may be called a "competitive edge" (Brown & Eisenhardt, 1998) in the educational marketplace. Colleges and universities compete at times fiercely for students, for money, and for the salaries and recognition that will attract important educators to their campuses. In this regard, students are now being termed "customers" and the curricula and attendant educational services the "products," and competition is a relatively new trend. As Nair (2003) points out, "The idea of increased competition is something that this country's higher education system has almost never had to contend with before" (Nair, 2003, p. 2).

Therefore, when viewed from the point of view of Resource Dependency Theory, organizations experience competitive relationships with similar

institutions for funding, and competition exists even with intra-departmental partners for tight resources. Consequently organizations that rely upon such funding feel at the mercy of the agencies (or groups) that control and dispense these monies (Campbell & Slaughter, 1999). "With increasing scarcity, resource allocation becomes problematic" (Salancik & Pfeffer, 1974, p. 463). So, when governmental appropriations to institutions of higher education wane, as they have since 1984, the burden for the institution's costs are passed on to its students in the form of tuition and fee-for-services increases (Leslie & Johnson, 1974), and some increases are very dramatic . For example Losco & Fife (2000) note that: "The total price for attending college at public four -year institutions increased by 95 percent from 1987-1996. The figure was 64 percent for private four-year colleges and 169 percent for public two-year institutions" (p. 52). And as the costs to the students for their education rise, "the ability of average Americans to pay for higher education diminishes, as wages, especially for low-skill workers, stagnated or decreased" (Losco and Fife, 2000, p.51).

This cause-and-effect spiral, based primarily on funding for educational services, has already exerted enormous pressures on students. They either borrow against their (presumed) future earnings, forego altogether completion of their degree programs, or reduce their course loads to part-time status in order that they may work part-time to pay for the increased costs of their education. Such is the very difficult dilemma that institutions of higher education, their supporters, their respective resources, and their students, faculties, and support staffs are facing each successive year, a dilemma that is aptly called a "Catch-22

situation” and that unless resolved or minimized bodes a strange future for higher education in this country, or at least a considerably different one from the future foreseen (or *assumed*) by previous generations of educators (Losco & Fife, 2000).

Resource Dependency Theory supports four strategies an organization should attempt in order to balance their dependence on their funding agency, as Pfeffer and Salancik (1978) outlined,

1. Adapt to or alter external constraints (p.92).
2. Alter the interdependencies by merger, diversification or growth (p.113).
3. Negotiate the environment by interlocking directorships or joint ventures with other organizations or by other associations (p. 143-145).
4. Changing the legality or legitimacy of environment by political action (p.188-190).

This study focuses on item number three above, negotiating the environment through joint ventures with other organizations.

We therefore return to the model in which educational institutions form specially designed collaborative agreements, not only during times of dwindling governmental funding, but as paradigms for the future of individual colleges and universities and, indeed, of higher education itself. Salancik and Pfeffer (1974) argue that organizations of all sorts have traditionally built coalitions and partnerships in their efforts to increase their respective shares of the resources. It

is further argued that the principles upon which these partnerships have been formed might well form the basis for viable educational partnerships that will aid colleges and universities in lessening their dependence upon government agencies—local, state, and federal—for financial assistance.

Resource Dependency Theory has its share of weaknesses. The theoretical frame for Resource Dependency Theory is organizational and business management based. This study features two educational institutions with local business and industry. Some could argue that the business and educational models of organizations are not transferable. This study ignores this argument.

Another perceived weakness of Resource Dependency Theory is outlined by Kreiser and Marino (2002),

Resource dependency theory also inferred that a firm's strategic options were determined to a great extent by the environment. Since firms were dependent on the environment for resources, they needed to enact strategies that would allow them to acquire these resources. Therefore, the external environment had already been determined for these firms, and they experienced little strategic choice. However, those who supported the notion of managerial choice argued that some organizations were more effective than others in the same environments, this proving that strategic choice did exist (p. 899).

Adding to the environmental concerns shared above, Pugh and Hickson (1997) stated, "it is generally accepted that environments affect organizations, but how this happens (through resource dependency theory) is not made explicit" (p. 64).

Organizations compete and cooperate simultaneously as needed. "For example, public education and higher education policy elites can be cooperatively interdependent regarding the issues of additional state funding for education, but competitively interdependent with regard to the specific distribution of the dollars between them" (Abrams, 1993, p. 62). Rivalry between competing organizations can be uneconomical and inefficient. Abrams supports James Wilson's views on cooperative and competitive behavior between groups when he states, "The costs of competition can be reduced through cooperation. Consequently, two or more competitive groups will often seek to minimize such costs to themselves through cooperative behavior" (Abrams, 1993, p. 61).

Procedures

This analysis uses the case-study method, in both its descriptive and qualitative formats, to study the partnership that has been formed between (1) An upper Midwestern community college, (2) An Intermediate K-12 School District, and (3) the business and industrial community located in and around this upper Midwestern community. Evidence is presented in the form of data from interviews with the "stakeholders" of both the individual partners and from communities that the partners serve. In addition, direct on-site observations and a thorough document analysis yielded additional data.

The Role of the Researcher

The author's experience as an educator and educational administrator clearly links theory and practice. As Dean of Butler Learning Community Centers, I oversee a division that houses three outreach centers separate from the main campus of Butler County Community College of El Dorado, Kansas: the Andover campus, the McConnell Air Force Base campus, and the Rose Hill campus, each of which is located in a suburb of metropolitan Wichita, cumulatively accounting for nearly 60% of the total BCCC enrollment figures.

The largest of these sites is the Andover campus, housed in three buildings and experiencing astonishing enrollment growth every year since its inception a mere 16 years ago, in 1987, from an initial student body of some 400 to its present-day figure of 5250 (as of the fall 2003 term). Most noticeable to students, faculty, and staff alike during this period of growth is the center's *shrinking* space, in the early 90s even though a portable classroom was added to increase to 15 the original building's capacity of 10 classrooms (and several offices). In 1994 a partnership with the local school district annexed an additional 20 classrooms (and increased office space and some student services). Another portable building erected in the winter of 2001 brought the total classroom space to 36 rooms. In addition, Andover High School has permitted the College to teach evening classes in its own facilities (adding some 10-15 classrooms) and the college opened up a new building in the fall of 2003 adding 12 classrooms and office space for faculty and staff.

Such pressure to insure merely adequate teaching and training space, and faculty and staff offices, obliged the Butler board of trustees to purchase land adjacent the property already owned by the College, a tract comprising some 35 acres and an ideal location in which to build a new and much larger facility for the entire Andover site. However, the college's administration cannot afford presently to build such an important facility; to alleviate the pressures that this situation brings to bear on trustees, administration, faculty, and students alike, a singular idea has been discussed on an informal basis between administrators, faculty and trustees—that a collaborative partnership between the College's K-12 colleagues and area corporations be formed. Such a collaborative partnership would generate the funds that the College requires in order to build on the land a facility that would create space in one convenient location for the school's educational and industrial partners and their respective educational and training needs.

This study will directly impact my ability to do my job. Not only am I deeply interested in this topic for professional reasons, I am uniquely qualified to conduct this study. I know and understand the potential benefits to collaborating with outside entities, and recognize my own personal biases towards bringing this effort to fruition.

Data Needs

Given the problem of reduced funding for higher education and the purpose of the formation of collaborative partnerships in attempt to meet the needs of their constituents, an institution of higher education that partners with

other organizations needed to be identified. Several processes were used to select the site for the study. First, document review provided information identifying potential collaborating institutions and a list of these institutions was formulated. Second, an expert in the field of higher education who was familiar with partnering institutions nationwide provided feedback on the list and what institutions were appropriate sites to study. Third, the researcher compared the identified sites to best draw conclusions that would be similar in size, scope and nature to his professional circumstances. Fourth, the key stakeholders involved in the collaborative partnership were contacted about their willingness to participate in the study and consented to participate.

Data Sources

An upper Midwestern community college along with its partners, the Intermediate School District and local business and industry indicated a willingness to participate in the study (see Appendix D). Representatives from each of the listed areas received a description of the study (see Appendix E) and signed a consent form to participate in the study before they were interviewed (see Appendix F). In addition, a thorough document analysis was performed. This included catalogues, brochures, articles, videos and minutes of meetings.

Data Collection

The researcher used personal, qualitative interviews to collect data from the key stakeholders involved in this collaborative partnership. Interviews provided information from these stakeholders in their own words about how and

why the partnership functions, and what benefits and obstacles exist as a result of these collaborative efforts.

The researcher developed questions for the interview protocol that yielded information to answer the guiding research questions. These questions were developed from information obtained through the literature review. After receiving permission to conduct the study from the stakeholders, the researcher traveled to the out-of-state location to conduct the interviews, observe the setting and gather additional documents. Once on site and after receiving consent, 17 interviews were conducted. Each respondent was asked prior to his or her interview for permission to record the interview electronically. All the interviews were tape-recorded. Before each interview, each participant was reminded that his responses would be recorded.

The researcher used the established interview protocol (see Appendices A-C) with the 17 respondents. The interviewed stakeholders who responded to the protocol questions were frequently asked follow-up questions to clarify or explore specific areas during the interview process. Most interviews lasted 45 to 60 minutes and were conducted during the subject's workday.

Personal interviews comprised the research method to collect data to answer the guiding research questions. This data was supported by the document analysis that was previously described.

Data Analysis

All data collected from the interviews were electronically recorded, transcribed verbatim by the researcher and entered into a matrix. The intent of

this process was to bring order, structure and interpretation to the mass of collected data (Marshall & Rossman, 1999). Meaningful phrases were analyzed and contrasted and compared to determine emergent categories and themes (Erlandson, Harris, Skipper & Allen, 1993; Lincoln & Guba, 1985).

Significance of the Study

The results of this study provide an understanding of great import to college trustees, campus officials, educators, educational fund-raisers, and community educational activists, of the descriptive and qualitative methodology that reveals how different entities cooperate, thus yielding a profound understanding of educational partnerships.

Nearly all institutions of higher education in this country rely extensively upon governmental monies (i.e., state dollars and agency grants and contracts) to fund their curricula, support facilities, faculty, staff, and scholarships (Benjamin, 1995; Harvey, Williams, Kirshstein, O'Malley & Wellman, 1998; Hovey, 1999; Leslie & Fretwell, 1996; Losco & Fife, 2000; Lovell, 2000; Zusman, 1999). Reliance that has been aptly termed the *Resource Dependency Theory* (Pfeffer & Salancik, 1978; Pfeffer, 1987; Salancik & Pfeffer, 1974; Ulrich & Barney, 1984), which means that an institution relies upon one external agency or another for its primary financial support. Subsequently, when even moderate reductions in this funding occur, institutions of higher education are forced to decide whether or not to continue programs that have low enrollment and whether or not to rehire both support personnel and faculty, to expand existing programs, to defer the purchase of necessary equipment, or to build new

classrooms and offices (Leslie & Fretwell, 1996). When such reductions threaten the economic viability of a college or university, its students bear the burden by paying higher tuition and fees (Leslie & Johnson, 1974), forcing its budget-planning officials to make critical decisions where they might apply—and how *thinly*—their limited resources.

Funding by state governments for higher education has decreased steadily over the past quarter of a century (Benjamin, 1995; Harvey, Williams, Kirshstein, O'Malley & Wellman, 1998; Hovey, 1999; Leslie & Fretwell, 1996; Losco & Fife, 2000; Lovell, 2000; Nair, 2003; Zusman, 1999). “Between 1984 and 1994,” a mere decade, “government appropriations fell in both constant dollars, from \$8327 to \$7393 (per FTE) and as a share of all revenues from 53 percent to 42 percent” (Losco & Fife, 2000, p.52). Accordingly, when an institution’s funding is reduced by such startling figures over a span of time when its operating expenses are increasing, the disparity between income and expenses is often made up by its students in the form of tuition increases: “The effect of increases in the price of college for the typical American family was dramatic” (Losco & Fife, 2000, p.52). The question thus arises, how do institutions of higher learning discover alternate and constant sources of income, to offset their corresponding losses of income due to loss of governmental sources and not be forced to increase tuition costs beyond the ability of all but a relatively few students to pay them?

Many experts have recommended that institutions of higher education form *collaborative partnerships* to reduce what are now seen as the inherent

risks of reliance upon government monies, and to ensure that the financial needs of their current and future master plans are fully funded (Abrams, 1993; Baker, 1999; Bluhm, Drew & Blankenship, 1992; Coburn, 1989; Gold & Charmer, 1986; Johnstone, 1994; Leslie & Fretwell, 1996; Lovell, 2000; Meister, 1998). These authors argue that the principle of *collaborative partnerships*, if studied and applied with utmost care by the partners themselves, promises in itself to reduce institutional reliance upon governmental funding and to generate important new sources of income. This study investigates both the theory and practical application of this thesis.

The leaders of higher education including college and university regents, campus presidents, academic deans, and faculty organizations face with what one author has called a challenge in that “the current structure of state-level education governance and politics creates pressure for both competition and cooperation” (Abrams, 1993, p.29). In other words, there has existed a tendency of governmental oversight committees to foster what appear to be paradoxical forces that may vitiate the collective energies that are meant to help educational institutions meet their financial and related goals. Such institutions have formed collaborative relationships, for example, with partners as diverse as business and industry, K-12 school districts, the military, and other institutions of higher education (Anderson, 1997; Basinger, 1999; Collison, 1999; Evans, 1994; Frazier, 1988; Powers, Powers, Betz, & Aslanian, 1988). And so it becomes all the more critically important that these diverse sources “work toward cooperative relations in seeking better support for higher education as a whole, and for

understanding how the distribution of scarce resources should be managed” (Leslie & Fretwell, 1996, p.178). The emphasis is now all the more forcefully placed upon the *cooperative* feature and decreasingly upon the *competitive* feature of such relationships.

Summary

In summary, as the considerable revenue required by institutions of higher education has diminished dramatically, so has the degree of competition increased between the same institutions for scarce monies. One viable solution to this multi-faceted dilemma is the formation of collaborative partnerships between organizations which agree with the common principle of sharing instead of competing for essential and valuable resources as detailed in Resource Dependency Theory.

The purpose of this study was to describe and analyze the complex process whereby a particular institution of higher education has formed a collaborative venture with its local business and industry partners and the local K-12 school district. Integrated into the study are interviews, on-site observations, and document analysis, which provide essential information about these collaborative efforts.

This study explores the relationships between theory and its practical applications, how effective Resource Dependency Theory can be applied, using the upper Midwestern community college, Intermediate K-12 School District and local business and industry partnership as the case. The author expects to find

that the premise of Resource Dependency Theory was a significant factor when implementing the collaborative partnerships that were analyzed in this study.

CHAPTER TWO

A REVIEW OF THE LITERATURE

The field of *Resource Dependency Theory* and its alternative principle of *organizational collaboration* have a timely, interesting, and extensive litany of literature. In this segment of the chapter, I highlight the reasons why organizations anticipate partnering with others and examines partnerships already formed, thus exemplifying the operative principle that an institution's dependence on governmental funding leads to financial difficulties that threaten the institution's very existence if it does not seek partnerships if and when local, state, or federal funding is reduced or withdrawn (Salancik & Pfeffer, 1974).

The next section analyzes the key arguments of the literature pertaining to principles of collaboration—a commonly understood term that in this application has far-reaching implications about the symbiotic relationships that can be formed between higher education, business and industry, as well as between significantly different levels of education (e.g., colleges and K-12 schools), military organizations and bases, and other campuses. This review also identifies the most important components of each “entity” in the overall partnership schemata and the degree to which each functions and thus contributes to the health, management, and purpose of the collaboration.

Resource Dependency Theory

Institutions of higher education need financial resources in order to function. These resources do not come from within the organization themselves; they come from outside entities such as funding from the government and the students themselves in the form of tuition (Losco & Fife, 2000). This reliance on outside agencies is the application of Resource Dependency Theory. Pfeffer and Salancik (1974) elaborate:

To survive organizations require resources. Typically, acquiring resources means the organization must interact with others who control those resources. In that sense, organizations depend on their environments. Because the organization does not control the resources it needs, resource acquisition may be problematic and uncertain. Others who control resources may be undependable, particularly when resources are scarce. (p.258)

There are many reasons for which institutions of higher education seek to create partnerships. They are self-serving in nature and include (1) the opportunities to gain additional resources, (2) the needs of business and industry, (3) the requirements of military personnel and planning strategic and tactical) (4) the maintenance and possible expansion of college programs, curricula, and student scholarship, (5) the expansion of teacher-development programs, (6) any potential legislative support (thus acknowledging the importance of the political process in funding, (Ancell, 1987; Anderson, 1997; Basinger, 1999; Brouillette, 2001; Feldman, 1987; Frazier, 1988; Hall, 1996; Maurrasse, 2001; Powers et al., 1988).

The strongest impetus for educational institutions to collaborate on a short- and long-range basis with business and industry organizations is financial. Such resources take the shape of cash flow, increased facilities, access to various fields of learning, research programs that dovetail academic and industrial work (Johnston, 1997; Lynton, 1984; Powers et al., 1988; Soter, 1993; Trubowitz & Longo, 1997).

But the question naturally arises, "Why are such additional resources needed?" Feldman (1987) responds thus, emphasizing the direct and daily challenges that American higher education faces.

Federal support for higher education, including student aid, has sharply declined while the competition for available resources has intensified as state appropriations are reduced or have leveled off. In addition, educational institutions must implement federally-mandated programs concerned with human rights, e.g., for the handicapped, minorities, Title IX. They must also replace obsolete equipment, computerize administrative and educational programs, improve fund-raising strategies, and so on. These vital needs are often funded at the expense of faculty salaries, scholarship aid, modernization of laboratories and other budget items that cannot be deferred indefinitely. (p.xii)

Leslie and Fretwell (1996) add, "one of the major changes imposed on institutions has been the need to find new sources of income" (p. 69). Moreover, competition for state funds is as widespread and thus as intense as it has ever been. When in the early 1990s the federal government shifted control of several

programs to the states, the share of state resources allocated to educational institutions slowed in direct proportion to the federal government's shift in funding. Thus,

Higher education is often perceived as the budget balancer as it is not a state or federally mandated program. To many legislatures trying to squeeze out every dollar available, it (higher education) can unfortunately be viewed as a discretionary expenditure (Lovell, 2000, p.112).

Resource Dependency Theory posits the principle that organizations will reorganize themselves whenever they perceive the need to do so, primarily because of the scarcity of or direct threats to their resources (Ulrich & Barney, 1984). Higher educational institutions find themselves in the midst of similar scarcity of resources. Pfeffer (1997) states,

Because network linkages are consequential for obtaining resources, resource dependence theory predicts that inter-organizational linkages such as mergers, joint ventures, and board of director interlocks will develop to manage transactions interdependencies" (p. 59).

Resource Dependency Theory is therefore helpful to the educators, business persons, and industrialists who wish to understand why colleges and universities actively seek partnerships. First, by acknowledging the competition between organizations and the units within over scarce resources, and second, Resource Dependency Theory states that,

Conflicts and struggles to obtain these resources are an ongoing part of organizational life. Institutions, agencies or groups that control and allocate these resources have the power to decide who will prosper and who will not. (Campbell & Slaughter, 1999, pp.310-11)

Barney (1992) adds, “according to resource dependence theorists, organizations that manage their power relationships well will outperform organizations that do not” (p.54). Higher education substantiates this theory vividly because so many colleges and universities are dependent upon—or as some would argue, overly dependent upon—governmental financing.

Therefore, as local, state, and federal governmental agencies continue to diminish or even to curtail their contributions to education, schools are naturally expected to accomplish more with fewer funds—or to seek other resources for their financing (Ancell, 1989; Campbell & Slaughter, 1999; Feldman, 1987; Johnstone, 1994; Leslie & Fretwell, 1996; Lucas, 1996; Lynton, 1984; Powers et al., 1988; Slaughter & Leslie, 1997; Tynan, 2001). The alternative is the search for collaborative partnerships with other institutions, agencies, and businesses, so Salancik and Pfeffer (1974) argue that resource dependence offers opportunities for these entities to build viable coalitions to increase their respective shares of the resources that sustain organizational activity. The aim is clear. When institutions of higher education form such partnerships, their dependence upon shaky governmental funding for their very survival—not to speak of *growth*—is increasingly reduced and the attendant uncertainties that reliance upon governmental agencies brings are minimized. Such strategies

mean that the organizations involved in such collaborative efforts will undergo transformations, as Ginsberg and Bucholtz contend (1990), because they are purposefully designed to help them survive the fate of institutional decline and failure. One of the key tactics in such long-term strategic planning is to lessen dependence upon governmental funding.

Collaboration

“Collaboration is an untidy business, full of uncharted territories, ambiguities and institutional complexities” (Johnstone, 1997, p.1). The difficulty arises in attempts not merely to define “collaboration,” but to analyze what it in fact *is*. Johnston therefore contends (1997) that “we understand collaboration as commonality of purpose and equality of power relations, but we are hard pressed to define exactly what this might look like in practice” (p.1). Trubowitz and Longo (1997) agree, for “there is not a uniform agreement about precisely what constitutes true collaboration” (p.27).

James Wilson breaks down the process into two levels of collaboration, coalitions and ad hoc alliances. Coalitions are defined as

An enduring arrangement requiring that choices over some common set of interests, for example, resources, goals, strategies, or the like, be made by the explicit mutual agreement among the members. A coalition thus, is an ongoing mechanism for explicitly coordinating some or all of the actions of the members; it is an organization of organizations. (Wilson, 1973, p. 267)

In contrast, ad hoc alliances “typically take the form of loose, cooperative

relationships between two or more associations with the respect to the attainment of a particular end"" (Wilson, 1973, p. 278). Wilson argues that organizations tend *not* to form coalitions unless severely threatened in some fashion or if the organization can be augmented. When faced with shrinking resources, a potential crisis develops and higher education looks to form short-term ad hoc alliances and more long-term coalitions with other organizations that share similar goals.

Many collaborative efforts related to higher education have evolved over the last two decades, one of the primary rationales being the increasing shortages of financial resources. "Part of the attraction of collaborative arrangements is the additional resources they can bring to bear on the mounting set of problems educators face" (Trubowitz & Longo, 1997, p.27), (an additional benefit including the opportunities that these partners experience of viewing themselves from similar and dissimilar perspectives that because of the collaborative mode of organization lie simultaneously outside and inside their respective organizations). What is certain is that practice is defining theory, because collaborative arrangements between higher educational institutions, K-12 school districts, and businesses are increasing (Bluhm et al., 1992).

As stated earlier collaboration is an untidy business and one that does not come without costs. Collaboration in an organization requires human action (Zucker, Darby, Brewer and Peng, 1994). These human actions can detract from the rest of the organization, thus a cost can be attributed to it. "This social agency involves activity that is costly, requiring human time, attention and

resources” Zucker et al, 1994, p. 93). Some would argue that collaboration could be inferred as collusion (Mintzberg, Jorgensen, Dougherty and Westley, 1996) and even collusion with the enemy (Currall and Judge, 1995). Whether it is worth the cost depends on the perspective of each individual within the organization.

Higher Education Teams with Business and Industry

Business-higher education partnerships are not new. In particular, land-grant institutions have been engaged in partnerships with businesses and industries—many of them agricultural—since the Morrill Act defined their service mission in 1862. Despite this long history, not until the late 1970’s and early 1980’s did the growth curve of business-higher education partnerships begin to increase markedly (Powers, et al., 1988, xvi-xvii).

This “marked increase” over the last 30 years brings with it correspondingly higher values associated with such partnering activities (Ancell, 1987; Campbell & Slaughter, 1999; Coburn, 1989; Feldman, 1987; Johnstone, 1994; Lynton, 1984; Powers et al., 1988; Soter, 1994). First and foremost among the various reasons that educational institutions are seeking such agreements is the promise of increased funding: “The most fundamental reason that institutions of higher education want to cooperate with business is to improve their financial situations. Federal funds available to universities have declined in absolute terms” (Powers et al., 1988, p.20). Moreover, partnering creates expanded consultant opportunities, the promise of legislative support, access to facilities and equipment, and increased scholarship funding (Ancell, 1987; Coburn, 1989;

Feldman, 1987; Jacobson, 2001; Johnstone, 1994, Rowley, Lujan & Dolence, 1998).

Yet another form that collaboration between an educational institution and a business takes is modeled on the *corporate university* paradigm:

A corporate university allows a company to coordinate and manage programs to train and educate its employees, customers and suppliers.

The corporation develops such programs through its own faculty or staff or through external partners like higher-education institutions. (Meister, 2001, p. B10)

Higher education has thus been approached to design curricula and training plans for corporations in order to meet employee needs. In this particular model, existing as well as new curricula are implemented through the accreditation processes that colleges and universities routinely undergo. Most of these plans, moreover, are dovetailed with particular degree or certification programs at the institution of higher learning (Meister, 2001; Noble, 1998; Wolfe, 1998).

This “corporate university” was born of widespread academic frustration with current models of education—for example, problems in delivery systems, the old-fashioned nature of the traditional semester system of organizing classes and programs, and various charges that the academic system has grown “out of touch” with rapidly evolving trends in public sensibilities (Crainer, n.d.; Garger, 1999; Gerbman, 2000; Meister, 2001; Noble, 1998; Wolfe, 1998). Crainer, in particular argues, “when first established, corporate universities raised a few academic eyebrows, [but now] the mirth has subsided and suspicion has taken

over” (p.2). Salopek (1999) states that “if the current pace of growth continues, by 2010 the number of corporate universities will exceed the number of traditional universities” (p.1). Such “corporate universities” might well be seen as genuine threats to traditional schools (Crainer, n.d.; Garger, 1999; Gerbman, 2000; Noble, 1998; Salopek, 1999; Wolfe, 1998).

Higher Education and the Military

Collaboration between institutions of higher learning and military agencies has important precedents in the history of this country’s educational culture:

- 1) President Franklin D. Roosevelt signed the G.I. Bill into law in 1944, and as author Peter Drucker states, “The G.I. Bill of Rights and the enthusiastic response to it on the part of America’s veterans signaled the shift to a knowledge society” (1993,p.95-96). This relationship between the several branches of the United States military was expanded when the University of Maryland began in 1946 to teach classes in the District of Columbia and soon thereafter, in 1949, developed an overseas program and began holding classes in Europe.
- 2) From its origins in 1902 (at Joliet Junior College) and steady but modest growth during the decades thereafter, the country’s community college systems began to witness extraordinary expansion during the 1960s, including campuses on military bases. “By then, nearly every post, camp and station had off-campus programs on their own installations” (Anderson, 1997, p.5). In fact, it was the community college system’s affordability and flexibility in terms of course and program offerings that

helped strengthen the relationship between the military and the nation's institutions of higher learning.

3) In the early 1970s, the Serviceman's Opportunity College was created. To become members, colleges had to be particularly flexible in working with service personnel. For example, they offered classes and honored transfer credits for the work that a person in the service may have completed (or nearly completed) at his or her prior station. This program eventually led to the development of accelerated curricula and "semesters," as well as the awarding of academic credit to military personnel for service-related training. Initially, only community colleges participated in this program, but before long four-year institutions joined the Serviceman's Opportunity College organization and were thus invited onto military bases to teach their respective curricula.

The competition is fairly strong among the country's institutions of higher education for the privilege to teach on military bases as well as to offer "distance education" courses to soldiers stationed abroad. By 2001, in fact, teams of corporations and colleges and universities submitted their bids to the military for the opportunity to become the nation's on-line educational provider (Carr, 2001). PricewaterhouseCoopers won the competition and was awarded the Pentagon's contract to oversee what has become known as "eArmyU," a program that "now includes 23 schools and 85 online degree programs" (Lorenzo, 2001, p.37):

More than 12,000 students have been served, with the eventual goal of 80,000. Six institutions with long histories of serving the military account

for about 85% of enrollments: Central Texas College, Troy State University (Georgia), Thomas Edison State College (New Jersey), Saint Leo University (Florida), Embry-Riddle Aeronautical University (Florida) and Saint Joseph's College in Maine (Lorenzo, 2001, pp.37-38). (See also Anderson, 1997; Carr, 2001; Hall, 1996; Lorenzo, 2001; and Stout and Mills, 1997, for arguments affirming the advantages to both entities, education and military, of such domestic and international partnering.)

Higher Education and K-12

Colleges and universities have for a number of years quite successfully collaborated with K-12 school systems, particularly in programs that focused on advanced education for teachers. "Partnerships were created to bring school districts and their schools into relationships with universities for the purpose of simultaneously improving schools and the educations of educators" (Frazier, 1988, p.11). Basinger (1999) adds that "dozens of colleges and universities across the United States have sponsored or formed partnerships with charter schools" (p. A51), partnerships that provide opportunities for present and future teachers to discover more about K-12 settings and modalities and provide college administrators and instructors opportunities to discover if what they are teaching does in fact meet the academic needs of their students. For such partnerships to be truly effective and not merely theoretical models of collaboration, they must establish their own clearly defined purposes at the very outset of the collaborative enterprise (Basinger, 1999; Frazier, 1988; Knapp & Associates, 1998). More specifically, they must determine guidelines for sharing

facilities, equipment, and funding, as well as instruction (including technical preparatory classes and concurrent-credit curricula). An excellent example is the collaborative program, called ArtsBridge, established by the University of California and that state's elementary and secondary school systems. In ArtsBridge, advanced university students receive scholarships to teach fine arts at various K-12 levels. The abilities of each student are matched with the particular needs of students from a lower socio-economic school, to which he or she is then assigned to teach, such subjects as music, art, dance, or drama in that school.

The University is able to reach out to students who, if they go onto college, will be the first in their families to do so. The public schools benefit from an infusion of high quality arts instruction, while the students themselves are introduced to the satisfaction of a teaching career. (Brouillette, 2001, pp. B-16-17)

Concurrent enrollment is yet another feature of the collaborative process that creates partnerships between higher educational institutions and K-12 schools. That is to say, most states have designed agreements whereby high school juniors and seniors may enroll in college-level courses and obtain dual credit. In Kansas, at Butler County Community College (BCCC) it is not uncommon to hear of local high school graduates who graduate with 15 (or more) simultaneous credit-hours at the college level (Calvert, 2001).

As noted above, BCCC shares facilities and space with two school districts, Andover and Rose Hill, collaborations that were created in order that (1)

the college acquire classroom space, that (2) the high school library facilities be enhanced, and that (3) concurrent-credit courses be housed under contiguous facilities. This arrangement, in place since 1993, has become a national model for the principle of collaboration between institutions of higher education and K-12 schools.

It is also important to point out that, as in most partnerships, there arise in *educational* partnerships general problems and specific challenges that each partner must endeavor to resolve on behalf of itself and on behalf of the collaboration. Restine (1996) states, "If the main goal of forming educational partnerships is to provide better and additional opportunities for children and adults to learn, then it behooves all educators to explore long-term relationships between and among all levels of educational institutions" (p.39).

Higher Education with Higher Education

The last example of partnering or collaboration to be considered here is that in which institutions of higher education collaborate with one another. There are many examples in which program duplication is reduced and redundancy of instruction and curricula minimized. One such program is the partnership formed between Florida A&M University and Florida State University's School of Engineering, which arose because the state legislature was unwilling to fund two separate engineering colleges located within just a few miles of one another. Therefore, these two schools "funneled resources toward building one college and required FAMU and FSU to work together" forming a collaborative entity that "is one of the top producers of minority engineers in the country" (Collison, 1999,

p.2). Georgia Tech has established a similar consortium with Atlanta-area colleges, based at the former's Atlanta University Center, one of several examples of institutions partnering for individual and common purposes. In most such cases, several schools function together on a single campus or even in a single building.

The more successful "university centers" combine a community college, several four-year colleges and universities, and a comprehensive university that offers graduate-level courses, in order to create a separate entity. The Rochester Minnesota University Center, for example, merges under one roof and into one facility Rochester Community College, the University of Minnesota, and Winona State University. Originally it was a "2+2" program that became a "4+" model when both of the resident universities began to offer graduate programs (Evans, 1994). Another example of successful collaboration between separate institutions of higher education is The Ardmore Higher Education Center, located in Ardmore, Oklahoma, which provides undergraduate as well as graduate courses and programs for residents of South-Central Oklahoma. East Central University, Murray State College, Southeastern Oklahoma State University, and Oklahoma State University at Oklahoma City collaborate to provide their individual academic services in one facility, and matriculation agreements between these institutions permit a seamless transfer of college credits. Oklahoma State University had previously been a partner in the Tulsa University Center, combining the resources of OSU, Tulsa Community College, Langston University, Northeastern State University, and Oklahoma University. Since 1999

OSU-Tulsa has partnered with Tulsa Community College and Langston University only, the other institutions having ceased to be the consortium's partners.

Still another example of educational collaboration is known as the ACCK, or the Associated Colleges of Central Kansas, which brings together the resources of six schools—Bethany College in Lindsborg, Bethel College in Newton, McPherson College in McPherson, Sterling College in Sterling, Tabor College in Hillsboro, and Kansas Wesleyan in Salina. They originally partnered in order to share the cost of a mainframe computer but subsequently have shared curricula, instruction and staff, centralized supply ordering procedures, and have offered joint degree programs (van der Werf, 1999).

In our modern computerized, on-line culture, and in the spirit of partnering, many schools share their developmental costs of providing curricula and the “final product”. One example is the consortium of colleges and universities of the western portion of the country, called the Western Governors University, or the WGU, founded in 1998 by 18 western states. The goal of the WGU was to encourage individual state universities to develop on-line courses and then to make them available to the general public. The criterion that each participating institution was obliged to respond to was that of a “virtual university” that extended to students the right to enroll in courses overseen by any of the partners and subsequently be granted degrees from a central location. The awarding institution being Western Governors University. Even though this experiment has not fully realized the ideals established in its charter, the model is

considered noteworthy and thus the expectations are that once WGU is granted accreditation, enrollment will increase (Carnevale, 2000).

Yet another example of an institutional plan to attract students to an on-line program is Ohio's Franklin University's fairly ambitious collaborative program with a number of other schools:

In hopes of enrolling more community college graduates in its online bachelor's programs, Franklin University has forged partnerships with more than 90 community colleges in 10 U.S. states and Canada. This program allows students to shift seamlessly from local community colleges while they take Franklin's online courses. The partnerships are not exclusive and the colleges are free to make similar arrangements with other institutions. (Young, 2001, p. A34)

These arrangements form strong evidence that the model of partnering between higher education institutions is truly viable. Through the use of shared facilities, instruction, funding, curricula, and purchasing methods, colleges and universities are able to plan and place into action collaborative agreements. These agreements provide the opportunity to meet their respective traditional and exigent needs and fulfill the purpose of their partnership.

The Obstacles Facing Partnerships

Although many analysts and commentators emphasize the many benefits of educational collaboration—as, for example, supplemented resources, additional research facilities for staffs and students, potential legislative attention and support, expansion of teacher developmental programs, military

participation, and the participation of local businesses and industries (see Ancell, 1987; Coburn, 1989; Feldman, 1987; Jacobson, 2001; Johnstone, 1994)—there remains a fundamental and thus very important question: *should* higher education partner with anyone outside the world of schooling, particularly with business and industry? The apprehension is that the former might well succumb to corporate takeovers of education, possibly hostile ones (Arnowitz, 2000; Giroux, 2001; Nelson, 1998; Pietrykowski, 2001; Veblen, 1954). Since 1954 this concern has existed and is summed up in the following: “It appears that the intrusion of business principles in the universities goes to *weaken* and *retard* the pursuit of learning, and therefore *defeat* the ends for which a university is maintained” [italics added] (Veblen, 1954, p.224).

The argument is that the boundaries between the two entities can become blurred, even indistinct, and therefore the question that opponents of such collaborative activity between education and business and industry ask is, "What role does higher education play in this partnership? Do teachers remain educators or merely trainers?" Arnowitz (2000) argues unequivocally that "the fundamental mission of higher education should be to play a leading role, perhaps the leading role, in the development of general culture" (p.172). However, one may counter this statement by arguing that if faculties and staff agree, opportunities for such partnerships are jeopardized. The poor track record between institutions and their communities could make the initiation of new partnerships difficult (Maurrasse, 2001).

Collaborative efforts are not easy to bring about, even between schools who wish to partner with one another. Trubowitz and Longo (1997) remind us, Collaboration is not an easy or smooth process. It requires skill on the part of the primary participants and must be worked out with a combination of tenacity and persistence. Nothing is automatic and breakdowns in trust, procedures or processes are a constant threat. (p.28)

Fullan (1999) adds,

Most schools, it hardly needs saying, are not in the habit of seeking outside connections. A combination of norms and structures of privatism, rigid hierarchical bureaucracies, and in recent times, relentless attacks from outside have kept most schools withdrawn from their environment. (p.45)

Summary

Many advantages accrue to each participant in the complicated issue of collaboration, the primary partners being higher education, branches of the United States military, K-12 school districts, and the corporate world (encompassing business and industry). Likewise, there are disadvantages as well. But the primary issue that institutions of higher education realize that they must not Many institutions find themselves faced with little alternative means for survival but *creative* searches for the additional means with which they may satisfy their manifold needs. Rowley, Lujan and Dolence (1998) sum it up best when they state, "Rather than protecting turf, higher education needs to shed some of it" (p. 223).

In an era of declining governmental funding, many institutions of higher education have sought and many now have begun to seek collaborative arrangements with other organizations in order to satisfy the needs of their constituents. So from the point of view of *Resource Dependency Theory*, because traditional reliance upon local, state, and federal governmental agencies for primary financial support has strained resources, there are viable economic alternatives based on new models of partnering.

CHAPTER THREE

METHODOLOGY

The purpose of this study was to describe, analyze, and interpret the principles and practices whereby an institution of higher learning collaborates with another entity—a K-12 school district, for example, or one of the branches of the military, or with industry and business, or indeed with a similar institution. As such, this study was designed to present a much fuller understanding of the intricacies of such partnerships. The lens for my investigation is Resource Dependency Theory. Resource Dependency Theory was evaluated on the basis of this case. Therefore, the focus of the study was guided by five questions pertinent to this research: (1) *Why* do institutions of higher education partner and collaborate? (2) What *factors* contribute to the formation of these partnerships? (3) What *benefits* are gained by the participants individually and collectively in their collaborative work? (4) What *obstacles* hinder or actually prevent collaboration? And (5) How useful is Resource Dependency Theory in explaining the formation of partnerships?

Methodological Framework

Given these questions, the basis for this study is a qualitative and descriptive study of the partnership that has been created between higher education and others. For this study the partners are (1) An upper Midwestern community college, (2) An Intermediate K-12 School District, and (3) the business

and industrial community of this upper Midwestern city and region. "Qualitative research is a form of inquiry that explores phenomena in their natural settings and uses multi-methods to interpret, understand, explain, and bring meaning to them" (Anderson and Arsenault, 1998, p.119).

The qualitative method in particular is especially apt for a researcher seeking an understanding of how different entities collaborate. If such a study bases its research on field interviews and on-site observations of strategies and techniques in their "natural settings," spokespersons may become cooperative and pleased to provide expert insights into the depth and breadth of their respective organizations' participation.

The primary emphasis of this study was, accordingly, to describe *why* in principle and *how* in practice an institution of higher learning forms a partnership with another entity, in order a) to understand the theory of partnership formation, and b) to understand the practical application of the theory that each entity contributes in order to fulfill the needs of its respective constituents. The field work for this study is based primarily on interview and participant observation methodologies, which provide access to the culture of this upper Midwestern community college. This academic institution creates a natural environment for such a qualitative and descriptive study, as opposed to relocating all subjects to a neutral setting. Schwandt (1997), building on the work of Guba and Lincoln (1985), has defined this method as "a commitment to studying human action in some setting that is not contrived, manipulated, or artificially fashioned by the inquirer" (p.102). Anderson and Arsenault (1998) add that "a fundamental

assumption of the qualitative research paradigm is that a profound understanding of the world can be gained through conversation and observation in natural settings rather than through experimental manipulation under artificial conditions” (p.119).

In other words, pertinent inquiry, attentive listening, and close observation has generated excellent evidence for a contextual interpretation of the phenomena that was researched. The goal of this study, then, was to interpret the data and then to sift through the data in order to extract the most practical application of the collaborative paradigm, applying this very information—where possible—to fill the lacunae of existing literature and thus to add to contemporary knowledge of the partnerships being contemplated and effected between institutions of higher learning, K-12 school districts, the military, business, and industry. The following sections of this chapter include a) study plan b) research strategy and setting, c) data sources and collection methodologies, d) data presentation and e) trustworthiness and credibility.

Study Plan

This study took place during the summer 2002 semester. Prior to traveling to the site, this researcher completed the preparatory work of analyzing documents and arranging the interviews. Ten days were spent on-site at this upper Midwestern community college. Four days were spent in the field collecting data after which two days were given over to review of the tapes in order to provide this researcher with insight about whether or not additional interviews were in fact necessary. This was followed by another three days in

the field and another two days to again review tapes. Finally, one last day was spent at the Advanced Technology Center facility, observing and listening in on student, staff, and administrative interactions.

A typical day spent in the field included 3-4 scheduled interviews, 1-2 hours observing the participants at work in their respective collaborative environments, and another hour gathering the data and obtaining any additional documents that pertained to the partnership. The audio tapes and transcriptions were kept in my possession in a locked file until the conclusion of the study after which the tapes were destroyed. The notes were coded and responses deemed appropriate for the study were analyzed in terms of Resource Dependency Theory and used in the analysis.

Additional data was collected through phone interviews and e-mail correspondence between my Kansas office and the out-of-state participants. Conclusions and recommendations were integrated into the final thesis document and presented for study and defense during the fall 2004 semester.

Research Strategy and Setting

The case-study format—specifically, a *descriptive* case study—was the instrument used here in this study. As Merriam (1988) states, "Case study research, and in particular, qualitative case study, is an ideal design for understanding and interpreting observations of educational phenomena" (p.2). "Description," he notes, "means that the end product of a case study is a rich, 'thick' description of the phenomenon under study" (p.11).

Setting

This community college is situated in an upper Midwestern community, and it has been serving the region since 1951, having opening its single-building doors then with an enrollment of a mere 65 students and a staff of six and expanding in a little over 50 years to 4,000 students and a staff of 260, located on a 100-acre campus. This community college currently serves a four-county area with a service population of some 40,000 situated between two cities. The region's primary industries are manufacturing and information technologies, maritime building and service, aviation, and construction.

This upper Midwestern community college course offerings are based on tradition community/junior college curricula and are thus "general education" courses designed to fulfill two-year associate degree programs and to meet the needs of students seeking transfers to four-year colleges and universities. Residents of the area benefit from a center located just off the main campus, the University Center, which incorporates under its roof 11 state colleges and universities and offers undergraduate and graduate programs and credits as well as technical courses and programs for the corollary demands of the area's students and industries (College Catalogue 2002-2003).

Augmenting these technical programs in particular—and forming the specific focus of this study—is the newly opened Advanced Technology Center, or "ATC," a facility housing advanced technology developed through the collaboration between the College, the Area Intermediate School District, and local business and industry. This 11.6 million dollar facility was funded by the

private-sector and by state grants and bonds and opened in January, 2001. College-level courses, advanced technological training, and the Manufacturing Technology Academy (MTA) all utilize the ATC facility, the MTA being a further collaborative arrangement between the community college and the Intermediate School District (ATC Grand Opening Program, 2001). About the latter: each year some 50 11th and 12th graders from area schools are accepted to the Manufacturing Technology Academy, where they receive integrated advanced technological training in courses such as robotics, CAD (Computer Assisted Drafting), hydraulics, plastics, electrical systems, machining, and metallurgy. Academy students begin their studies at 7:30 a.m. and finish at 11:30 a.m., when they return to their home schools for traditional coursework and activities. These students are paired with mentors from surrounding businesses and are eventually awarded internships with these businesses during the summer months (Manufacturing Technology Academy: Annual Report 1999-2000).

Data Sources

Both purposive and directed sampling was used to identify the key “stakeholders” in this particular partnership. As Merriam states (1988), “Purposive sampling is based on the assumption that one wants to discover, understand, and gain insight; therefore one needs to select a sample from which one can learn the most” (p.48). That is to say, in order for the interviewer to learn as much as possible about the collaborative venture under scrutiny, the subjects studied (for the most part) need to be *directly* involved in the partnership, to wit: “Purposive and directed sampling, scrutinized through the medium of human

instrumentation, increases the range of data exposed and maximizes the researcher's ability to identify emerging themes that take adequate account of contextual conditions and cultural norms" (Erlandson, Harris, Skipper and Allen, 1993, p.82).

A list of the key stakeholders that were interviewed was obtained from personnel contacts at this upper Midwestern community college and the Intermediate K-12 school district. The samples included college and school district administrators, local business and industry representatives, and faculty members from the technology program. In addition, faculty members not involved in the ATC program were sought out upon this researcher's arrival at the ATC site in order to provide balance to the study.

Five interviews with the administrators were conducted, among whom were (1) the President of the community college, (2) the Superintendent of the Intermediate K-12 School District, (3) the Academic Vice-President of the community college, (4) the Director of the ATC facility, and (5) the Program Coordinator of the above-mentioned school district. This administrative group in particular provided people who helped design and effect the partnership. Specific interview questions have provided valuable insight into the factors that inspired the collaborative effort and determined whether or not the partnership has in fact been the success that its designers planned. A special set of interview questions was selected for the school administrators because their points of view were so vital to the results of this study (see, in this regard, Appendix A).

Included within the faculty group were members of the ATC faculty and several faculty members from outside the ATC program from the community college. Pertinent interview questions were designed with these stakeholders in mind; the interviews themselves were arranged through my contacts at the college (see Appendix B). Interviews with faculty whose positions lay outside the aegis of the ATC program were arranged upon my arrival at the study's site. The interviews—separately created—provided a different and therefore a balanced point of view of the practical effects of this collaborative endeavor (see Appendix C). I interviewed three faculty members from inside the ATC program and two from outside the program, in order to provide the study with an equitable analysis of the program as a whole. These faculty interviews were particularly important to the study because these members formed the frontline soldiers, so to speak, in the overall strategic planning and logistical support for such a counter-assault upon the “enemy” of reduced funding from traditional sources.

The goal was to gather intelligence from the members of this ATC force in order to understand how this particular partnership gained benefits for its individual members and at the same time endured the hindrances and learned how to circumvent (or reduce) the obstacles that lay in their paths and threatened the viability of the coalition. Again, the viewpoints of the non-ATC faculty provided interesting balance to the study; for if there were in fact faculty members who resent or fault this arrangement, their arguments were vital to a full understanding of what weaknesses may have been intrinsic to this partnership (and, by extension, others) or that may have been temporary, but exhibited the

potential to *become* substantial threats to the stability of this and other collaborative enterprises.

Furthermore, local business and community leaders were interviewed for their perspectives on the collaborative format; two members of the ATC Advisory Committee were given interviews, as well as a representative from the regional higher educational governance board. The interview process included college trustees and others from the community, who provided some assistance in establishing this partnership. The director of the ATC facility provided this researcher with a list of the advisory committee members. The program coordinator for the local school district recommended and helped secure other community members who were interviewed.

In addition, interviews with local business and industry officials provided insight into whether or not the financial resources benefited the individual members of partnership and the newly formed entity itself, and as such their responses were particularly important. For the considerable investment of time, staff, and money by local business and industry made this group an equal partner in the collaboration, and their opinions were valuable both to the collaborative endeavor and to this specific study (see Appendix A for the interview questions devised for this sub-group).

Data Collection

Three data collection methods were used in the case analysis- interviews, participant observation, and document analysis. The interviews featured many of the important partnership stakeholders, here divided into three categories:

college and school district administrators, faculty members, and both community and business leaders. Three separate sets of interview questions were developed for each group, appropriately formatted according to the individual's field of expertise and degree of experience in the partnership setting (see Appendices A-C). That is to say, many interviewees had considerable involvement with the partnership, while others had relatively diminished degrees of engagement; still others did not even realize that such a partnership existed. The interview questions arose from the intrinsic nature of the five primary research questions that guided this overall study (see above, page 7).

Interview Protocols

All research in this study was conducted according to the guidelines established by the Oklahoma State University Institutional Review Board, and an IRB Consent Form was provided to and signed by each interviewee (see Appendices E and F). Each interview began with a brief introduction that outlined both the purpose and the benefits of this study, and it is here that the subjects were granted time to ask for any clarification and that the issues of confidentiality were carefully explained. The protocols for the interviews of key stakeholders in this partnership included a number of common questions. The questions emerged from the five research questions that guided this study, examples of which follow (see Appendices A-C for the long forms of the interview questions):

- ◆ What is your role in this partnership?
- ◆ What are your reasons for participating in this partnership?
- ◆ What factors contributed to the formation of this partnership?

- ◆ What role—if *any*—did financial resources (of any of the partners) play in the initiation of this partnership (expand to include concept of Resource Dependency Theory)?
- ◆ Explain how the funding for this partnership works.
- ◆ What benefits are there to this partnership?
- ◆ How would you categorize the collaboration that goes on here?
- ◆ Who is/are the important decision-maker(s) here?
- ◆ How are decisions made in this partnership?
- ◆ What obstacles tend to hinder this partnership?

The interviewees were then asked more specific questions according to the role that each interviewee played and (as deemed necessary) based on original responses to questions (see Appendices A-C for complete interview questions).

Observations of Participants

A key method used in the study was this researcher's direct observations of the subjects and their interactions at the ATC facility and throughout the college campus. Interactions among faculty, staff, students, and mentors from area business and industry were observed. Such observations confirmed information gathered from field interviews and analysis of documents, and they served also to prompt additional questions for follow-up interviews (Strauss and Corbin, 1990). Accordingly, Bogdin and Biklen (1992) caution the researcher, to "try and pick out a setting or group that is large enough so that you do not stand out, but small enough so that you are not overwhelmed by the task" (p.64). The former remind us that the goal in each observation is to reveal *useful* data, and

therefore they recommend what may be termed an adaptive mode of operation sensitive to whatever flexibility that the researcher requires in order to adapt to exigent circumstances and to shift locations if necessary.

This “hanging around” style of observation, Merriam argues (1988), enables “The participant observer...to see things firsthand and to use his or her own knowledge and expertise in interpreting accounts from interviews” (p.88). Moreover, associating comfortably, even casually with the individual participants in the collaborative process provided yet another opportunity for the researcher to gain the trust of key personnel and to acquire contextual and clarifying information for assimilation into the interview analysis. This observational process also required the researcher to remain on site longer than a mere two or three days, extending his time spent at the research facility to a full 10 days.

Document Review

A complete analysis of the research material began prior to the interviews and continued throughout the course of this study, and this included analysis of (1) mission statements, (2) catalogues, (3) minutes from meetings, (4) printed matter and video directly related to the partnership activity, (5) historical documents, and (6) artifacts linked to the collaboration. Such an unobtrusive style of research, begun even before the researcher traveled to the site and continued throughout the process, was especially recommended by Berg (1995) because information acquired by this method has been seen as very valuable in creating a profound understanding of the theory and practice of the partnership

paradigm. It offered as well important data that supplemented interviews and observations.

Data Presentation and Reliability

A tape recorder was used to record the interviews, and the tapes then transcribed verbatim. After this process of transcription, of recording observation notes, and of collating pertinent documents, the analysis of all relevant data continued. As Lincoln and Guba argue (1985), "Data analysis involves taking constructions gathered from the site and reconstructing them into meaningful wholes" (p.333). Needless to say, however, each and every interview was a unique phenomenon and therefore formed its own meaning; for as Erlandson, et al. (1993) argue, the "analysis of qualitative data is best described as a progression, not a stage; an ongoing process, not a one-time event" (p.111).

Such qualitative research yielded considerable data for the researcher, and therefore analysis began early in the research process. Accordingly, a variety of methods were employed in analyzing the contents, including sorting, organizing, and reducing the data to a manageable format (Schwandt, 1997). In particular, a matrix was generated, using the content analysis paradigm that listed the subjects and summarized their responses to the interview questions, comparing and contrasting the individual responses, and searching for patterns of both commonality and anomaly in the data. This format is termed the "Constant Comparative Method," whereby more recent responses are compared and contrasted with earlier ones in a constant search for consistencies and

discrepancies (Erlandson, et al., 1993). Coding was also be used in the transcription process and in collating the notes taken in the field during the ongoing interview and observation process.

Erlandson, et al. (1993) describe this interactive process of data analysis thus: “the human instrument responds to the first available data and immediately forms very tentative working hypotheses that cause adjustments in interview questions, observational strategies and other data collection procedures” (p.114). In other words, the raw data and the analysis become synthesized in the overall process.

Trustworthiness and Credibility

It should always be the aim of the researcher's integrity of vision and purpose to achieve truth, value, and credibility when he or she conducts a study, the goal itself becoming *internal validity* (Lincoln and Guba, 1985). Thus, the trustworthiness and credibility of the data must be established by means of persistent observation, purposive sampling, triangulation of the data, interpretation of the data, and “rich, thick description” (Merriam, 1988). Synthesizing field interviews, direct on-site observations, and analysis of information created what Berg (1995) and Erlandson, et al. (1995) call *triangulation*: “By combining several lines of sight, researchers obtain a better, more substantive picture of reality; a richer, more complete array of symbols and theoretical concepts; and a means of verifying many of these elements” (Berg, 1995, p.5). Triangulation becomes an especially important research tool because it helps to confirm the findings of the study and to ensure their validity as well.

Fielding and Fielding (as cited in Berg, 1995, p.31) argue “that the important feature of triangulation is not the simple combination of different kinds of data, but the attempt to relate them so as to counteract the threats to validity identified in each” (p.5).

In addition, peer-debriefing and member-checking were utilized in order to ensure credibility and to generate additional insight and data from the subjects. The former involved conversations with trusted colleagues (such as one’s dissertation advisor and committee) for their responses to the data gathered during the field work. This method “involves sharing or evolving attempts describing and analyzing qualitative data to achieve some kind of consensual validation” (Schwandt, 1997, p.113). In addition to the debriefing sessions between the researcher and the thesis advisor, a trusted colleague who was familiar with the principle of collaborative partnerships yet who was independent of this particular study provided her commentary on the study.

The latter stratagem, member-checking, involved “taking data and interpretations back to the people from whom they were derived and asking them if the results are plausible” (Merriam, 1988, p.169). Specifically in this study, member-checking consisted of two components—the first confirmed the data gathered early in the interview process with the interviewees themselves, each such interview provided opportunity to reinforce the information gathered in previous interviews; the second consisted of asking 5-8 key participants in the study to read the transcribed notes from their own interviews and to confirm their

statements. The latter was accomplished through phone and electronic mail conversations.

Summary

The basis of this study is a qualitative and descriptive study of the partnership that exists between an upper Midwestern community college, a K-12 Intermediate School District, and local business and industry in this upper Midwestern community. In-depth interviews were conducted with key stakeholders from each of the above-listed groups. Data was collected through interviews, observations, and review of documents provided by the participants. Trustworthiness and credibility were established through member checking, and the results were plausible. Resource Dependency Theory was put to the test in this study of collaboration, and the findings and analysis of the data are to follow in the next two chapters.

CHAPTER FOUR

PRESENTATION OF THE DATA

The purpose of this study was to describe, analyze and interpret the partnership that exists between a community college, an Intermediate School District (ISD) and local business and industry in a rural area in the upper Midwest. Using *Resource Dependency Theory* as the investigative lens and guided by five research questions, the data presented in this chapter and the analysis in chapter five present a much fuller understanding of the intricacies involved in the collaborative process.

This chapter has been divided into three sections. The first section describes the collaborative process that ultimately emerged from the experiences of the interview respondents. The second section highlights the many *challenges* that the partners identified in the collaborative process. Subsection themes include challenges with relationships, funding, “victim of own success” and articulation. In the third section, *opportunities*, data from respondents indicate the many opportunities to partner and explore the culture of collaboration that exists in this region.

The Collaborative Process

The main processes of collaboration are described in this section and ultimately these main themes of survival, funding, facilities and equipment, programs, location and common sense emerged from the data.

Individual Survival

The motivating principle for all participants in the partnership that was formed to serve a community college, an Intermediate School District, and the regions industrial and business communities was *individual survival*. Each understood that in order to exist as an independent entity it had to form a symbiotic relationship with its partners. One area educational administrator summarized the partnership in the following terms:

If we don't have jobs and the *right* kinds of jobs for folks here; if we don't have the right kind of educational facilities and opportunities, we're not going to maintain the quality of life that we have here, and I think that is the biggest thing.

The logistical problems created by shared funding, equipment, and personnel became the special focus of the partnership's planners. In the words of a local school district administrator, since retired:

In sharing facilities, it's just something you *need* to do, and it doesn't make sense to carve out all kinds of turf. As much as we try to avoid that, we have some, but we sure have tried to minimize them because we need to share facilities to survive.

I noted earlier that organizations experience internal transformations of certain traditional and therefore inherent features when they are forced to plan strategies for their very *survival* that depend on the demands of external environmental conditions (Ginsberg & Bucholtz, 1990). In the Traverse City alliance, all three key partners—business, industry, and education—transformed their intrinsic natures from more or less traditionally independent models into one of the “culture of collaboration.” As one local administrator remarks, “Overall, all of us have recognized that we just can’t do it alone.” Another added, “I don’t think that anybody in this day and age—when you are looking at creative programming—can do it by themselves.” A school district administrator concurred when he stated,

Survival, yeah, we work with a group of 16 different administrators in a group called ‘Framework for the Future’ for our region in public education and the key element or motto is to survive locally, we must think and act regionally. This gets brought up each and every year as we plan and set goals for the region.

Finally a school district administrator summed this situation up well when he stated, “There is no way we can do it alone. There is no way the college can do it alone. So for survival sake it was natural to look towards each other in terms of shared resources”.

Funding

As one local school district administrator stated, “funding is *always* a consideration, as we are dependent on the taxpayer and state for our existence.”

One viable solution for the crisis brought about by reduced local, state, and federal funds was the formation of collaborative relationships with other organizations to meet individual needs.

Although a number of reasons exist whereby academic institutions seek partnerships with organizations that may in themselves not be specifically (at least traditionally) educational (meet needs of business and industry and the military for example), their primary purpose is the search for money (Johnston, 1997; Lynton, 1984; Maurrasse, 2001; Powers, et al., 1988; Soter, 1993; Trubowitz & Longo, 1997). The partnership that was formed between the college, the Intermediate School District, and local businesses and industries was predicated upon this very principle. "One thing I have learned is that you don't need dollars to collaborate. In fact, collaboration is where you can save or share dollars that otherwise might not fall into our laps," remarks a school administrator. A college administrator agrees, "the administration of both the school district and the colleges saw that partnering would be a good way to reduce costs".

Moreover, as I was conducting this research I discovered *many* such partnerships between the community college, local school district, and area businesses and industries. However, the main focus of this research was the direct partnership between the aforementioned entities ultimately leading to the construction of and shared usage of a facility known as ATC. The facility is operated by the community college and shared by several Intermediate School District programs—especially the more highly technical programs and the Manufacturing Technology Academy—and local businesses and manufacturing

concerns (particularly for their training needs). The funds for this shared facility were derived from the State, a local taxpayer bond issue, and private donations. The ATC facility's director notes, "in particular, this was technically a partnership between the State's Economic Development Corporation, who originally provided for the seed grant of 4.3 million dollars, which was matched by the college's bond issue". Additional funds from various sources in the private business sector completed the overall \$10 million cost of the facility.

One condition that the State set on the recipient of the state grant was that the college demonstrates evidence of *already* existing partnerships with local business and industry. A high ranking college administrator has therefore emphasized that:

When the state established the ATC network, organizations applied for funding, [but if] there were no colleges awarded funds who did not have as part of the plan a partnership program with minimum industry; and more common was a multi-partnership within the community. We needed to have ownership from various stakeholders, so we could ask their assistance in securing the funding.

Accordingly, the partnership between the two primary educational institutions provided an important basis for the state grant. As a local school district administrator has revealed:

I think because we had already done all this work [in establishing] the Manufacturing Technology Academy, when the state representatives were here to hear about what we had been doing and why we felt this

location would be great for ATC—in my mind, because we had already put this MTA program in place, it helped solidify the need for an ATC facility here. It really *leveraged* us.

So when the state grant was awarded, a local bond issue was offered in 1999 to the voters of the county, who passed a \$34 million bond, some \$5 million of which specifically designated for funding the ATC facility, the balance going toward various construction projects on the campus of the community college. As one college administrator has explained:

The fact that the community in general was so supportive of the ATC project was a big reason why we got our bond passed. But ATC was only a part of the bond. There were many other projects in there also; but that [ATC] was kind of our flagship thing to really sell people on the need to pass the bond.

The design for the facility was thus approved and construction begun, and in January, 2001 the grand opening of the ATC facility took place.

The day-to-day operational funding for this advanced technology center is based on a relatively complex scheme, however. For example, the College houses its occupational educational programs at ATC, and the school district has situated three of its technical programs at the same site. The ATC plant is owned and operated by the college and financed by means of the College's general fund. Therefore, the institution pays *all* the building's operational costs, but the College and the local school district share the costs of the electronics and

machine tool programs. Specific lines of fiscal responsibility therefore become somewhat blurred, a matter on which an ATC faculty member has commented:

The high school instructor and I look at the material needs, and I do the ordering for both of us so we don't have separate materials and supplies. I order for both of us and pass the bill onto them for reimbursement of their portion.

The school district pays no rent for its use of ATC classrooms and laboratory facilities, prompting an ATC instructor to remark, "We are just really good hosts"! A different college faculty member stated, "we can't justify the high cost of equipment and facilities, in some cases, even the software that we use and then duplicate it in other facilities". A college administrator agrees,

Now in terms of the partnership between the college and the school district, that partnership is more programmatic than it is financial. So the key to the partnership between those educational institutions is that no one can afford facilities on their own anymore, especially if you start calculating the costs of all the equipment needed in a technical facility. So what they have done is they have said we need to share facilities as much as possible.

An ATC faculty member concurs,

We have a state of the art facility, rivaled by none, but if we didn't have this partnership with the school district it wouldn't look anything like it does now. We merged two programs together; the equipment was bought together. The curriculum is running in parallel. And with the school district

funding through their millage, they are able to help us out financially, they are our (the college's) financial support.

In addition, local businesses and industries raised funds for and made their own contributions toward purchases of equipment for the Manufacturing Technology Academy, also located at ATC; yet the school district pays the salaries of those who teach at ATC, despite the flow of money from private sectors that boosts the MTA program. As one area businessman has said, "We had a budget that we feel is about \$50,000 a year that the Academy really takes to run, [based] on current costs of what they are doing [and the] different programs that we like to pay for." Funding for the overall ATC facility is thus distributed between the various partners that use it, and the accounting procedures can and do become more complicated than many participants feel is necessary.

Funding played a pivotal role in the collaborative process. The partners saw that by collaborating costs could be reduced, access to additional dollars from the other partners involved increased and because the partnership existed, dollars from the state were gained.

Facilities and Equipment

The history of collaboration between the community college and the Intermediate School District dates back many years, and over the past six to seven years the number and intensity of such collaborative efforts have increased, particularly their sharing of facilities and equipment. One ATC teacher sums up this relationship thus:

I've been with the College for about 23 years [and] approximately six or seven years ago ISD, the Career Tech Center, [and] K-12 collaboration with the college decided to merge some programs sharing facilities and equipment. The first one to do that was welding. Our welding program moved the equipment and classes to the Career Tech Center at the high school. This freed up space. Then that was remodeled and expanded to bring their machine tool equipment to our facilities. So it was a kind of a swap. . .[and] has been in place here for about six years now; and the move here to ATC was kind of a collaboration of that partnership, basically just in new facilities.

A local economic developer adds, "I mean financially there are all kinds of saving by sharing space and equipment." A school district administrator agrees:

We have a shared-use agreement, where we don't charge each other, and it's really very open and flexible. I think that is a real important part. Why duplicate labs? Why duplicate staffing when we can work together to save some funds.

A retired school district administrator added,

We had decided way back when that we shouldn't, in a community this size, be duplicating facilities where it wasn't necessary, and we've been somewhat successful in that. We still have some duplication, which from a taxpayer standpoint you would rather not have.

An ATC faculty member pointed out, “It was suggested to the higher level of administration (of the college) or brought to their attention from the community saying, why do we have two facilities doing the same thing essentially.”

From the outset the two institutions analyzed their respective equipment and facilities, and a retired school district administrator has commented:

The College and our administration sat down and looked at facilities, and they looked at equipment; and in some cases, we had the facility, in some cases they did. [In] some cases our equipment by far outstripped theirs. . . in some cases theirs did.

An important question that the participants had to respond to during their joint effort of identifying whose facilities and equipment could be most effectively used and by whom, is framed thus: “Whose facilities were being used, and when exactly did this usage take place?” A retired school administrator explains:

We started out with a facility study, where we tried to figure out whose facilities were getting used [and] when, and as you might expect we found that the K-12 facilities were heavily used during the day, with everyone gone out of there by 3:00 or 4:00 in the afternoon the facility was pretty empty other than a fairly small adult program. The College was almost so the immediate thing they said was, “Why are we doing it? Why can’t we do this and get the whole thing cranked up?” And as I said, administratively we—from the president level on down—we set that as a goal, where possible to co-locate, and we’ve got six or seven programs

that are: some of them are taught in the ISD facilities, and some of them are taught here at ATC.

This arrangement has been effective for the most part, about which a school district administrator has remarked that

We share equipment; we jointly own the lab equipment, [and] that lab equipment is in the ATC facility because that is where they [the college] moved it. So, we have new space and we share the facility, and we often times have high school and college kids in there simultaneously because the lab has room.

All members have noted the benefits to the partners of these sharing facilities and equipment, as one MTA faculty member has indicated:

The good part about it is that we use it during the day, and then the College takes it over at night; and things are actually busier here [at ATC] at night than they are during the day. When things are slow—as they are during the day—it is easier for the College to give up space when they most likely won't be using it at times when we are in here. When the building was being designed, the College came and asked us for our input—and the manufacturers as well—so we were able to get two dedicated rooms just for us, the MTA.

An ATC faculty member agrees:

The lab facility, the equipment sharing is great in the sense that there are more machines available. It gives us more lab assistants; it gives us the

opportunity for more students, more time available for students to come in and use the equipment at different times of the day.

A college official summarized the benefits to both institutions:

Sometimes it's really beneficial to not feel like you have to do everything; you have to be all things to all people. For example, the Intermediate School District has a welding program at their facility—well, basically what that means is the College doesn't have to do that. We don't have to invest in it. On the other hand, the College has a really nice, new, big photography lab, [a] big darkroom facility; and that means that the school district doesn't have to do that. So, it's a relief financially and emotionally to not feel like you have to cover every base all by yourself.

The partners realized the advantages of not having to duplicate facilities and equipment and the benefits of gaining access to facilities and equipment that otherwise would not have been available.

Programs

Another important collaboration between the College and the intermediate school district occurred when the two institutions either joined or aligned their respective occupational programs. Sometimes the impetus was the sharing of a facility or equipment, as discussed above, and at other times the impetus was the shared opportunity to articulate credit between the two academic institutions, as outlined by a school district official:

When I think of our partnership, I think of articulated credit. That is a very

important part of our scope—in making sure that our programs and the programs that the college has, that we match up with; so we have opportunities for our high school students to receive credit upon completing our programs successfully and then going on. I believe that 18 out of our 24 programs have them [articulation agreements] on paper. “Articulation is the process of comparing courses among institutions for the purpose of awarding credits” (Shishkoff, 1991, p. 90). In this case the college has evaluated the school districts courses and the skill sets necessary to gain college credit have been met in the existing high school course.

Such praise for these opportunities is echoed by a former school district administrator, who says that “a high school student in welding could get college credit concurrently with their high school credit, and it got them thinking, ‘I can do college’! A college faculty member agreed,

I’ll tell you a more direct link we have with the high school partnership and the college partnership is that in electronics for \$75 we (the community college) will allow a high school student to take what he has learned in high school and purchase equivalent credit. That works in electronics that works in machine tool and it works in welding.

The college received an enrollment boost of sorts through the granting of articulated credit. “The articulated credit and many of our students that start as juniors end up going the plus two at the community college once they are done” (at the high school) stated a school district administrator. A retired school district administrator adds,

The enrollment of the community college, they got students they wouldn't have normally got or at least they got them much earlier than they would have. It gave some opportunities to some of our students when we started being able to use the word college, we started attracting a little different kind of student also.

A college administrator summarized this process, "we are making fluid articulation for students as they move from K-12 to the community college."

Such opportunities as provided by these sharing programs multiplied as soon as the overall community and local businesses and industries heard what their capabilities in fact were. As a college administrator stated:

I think it dates back several years, when the community looked hard at us and couldn't distinguish between some of the occupational programs that were offered at the Career Tech Center and offered by the college. They said, why should we invest in capital improvement at the Career Tech Center *and* capital improvement at the college? And so what resulted was an effort to look at where we had synergies between the Career Tech Center and the college, so [that] we could combine programs wherever possible. So we *did*.

An administrator from the community college agrees: "We have a long history, particularly on the occupational side, of trying not to duplicate service in the educational area for the region". A retired school district administrator stated, "We had already started to co-locate (programs) and in fact the cooperation between the school district and college predates ATC probably by ten years."

A school district administrator added,

We have three of our 24 programs housed at the ATC facility and that is machine tool, electronics and the Manufacturing Technology Academy (MTA). In return the college has their electrical occupations residential wiring program at our facility and also their welding program is here in our facility, so that is something.

A college administrator concurs with this summary: "We had combined our machine tool and electronics programs at the high school tech center already; it doesn't make sense for a community this size to have *two* distinct facilities; we can't support [them]." To which an ATC faculty member agrees:

We have a state-of-the-art machine shop, rivaled by none. But if we [didn't] have this partnership with ISD, it wouldn't look anything like it does now. We merged two programs together, and the equipment was bought together. We all agreed to make it look like we were completely cohesive. The curriculum is running in parallel. The students are all taught by the same para-pro, and it is truly something that we could not afford to do separately and have what we have.

An ISD administrator sums up this arrangement thus:

Anytime you can get partners together who are doing the same things, you are going to avoid some serious duplication. We have eliminated a lot of duplication. I have mentioned a lot of programs that we are doing with the community college that otherwise each entity would be doing separately. We have articulation agreements for almost everything we do

at the Career Tech Center. That saves certainly parents and students a lot of financial costs and ultimately gets our business partners the labor force that they want a lot sooner. And so all this is about *efficiency*.

The administrator further explains the degree to which both institutions make every effort to combine their programs whenever possible:

We try not to do anything relative to career technical education without involving our business partners. We won't make a decision until we get relative input from them. If it's a combination program—which we have so many of with the community college—then we will apprise them of what we are doing and often invite them to be a partner, and they might do similar[ly]. Then we just expand the group as we work towards forming whatever the program might be.

However, such collaborations do not always work out as smoothly as these statements indicate. As a college administrator points out, regarding the auto technology programs at both schools:

Some programs were not combined. I suppose the most noteworthy one was automotive service technology. We spent a great deal of time trying to see if it was possible to use the facility at the Career Tech Center, especially given that the ultimate plan was to tear down the facility where auto tech was at the college. We attempted to do it but finally concluded that it would have been difficult to offer the combination of programs that they offer and we offer in a way that we could offer it in a two-year cycle. So we finally concluded that it wasn't possible to fit the curriculum into the

facility and still have our students graduate in two years. Then we discovered the Federal Express Building, which is very close to ATC; and so we. . .purchased that with the bond issue that was passed in 1999, and so that was one area that we didn't establish a common space and common program.

A different college administrator agreed:

One the other hand, in some areas like automotive it didn't make sense to merge. We couldn't come up with a sensible merger. Automotive technology is also a part of what we do here [at ATC]. So we. . .upgraded our facility, with the agreement that because it was a capacity issue there was no way we could run both programs simultaneously the same facility.

Summarizing the topic of "programs," then, we can see that the College and the local school district work conscientiously, expending considerable time and effort to identify precisely, which programs create effective combinations and which potential mergers are impractical upon equally conscientious analyses. Each program, that is to say, is evaluated according to the criteria befitting each school independently as well as the relationship(s) with its partner(s).

Location

Another important factor that helps make such partnerships effective is the geographical area that the community college and the local school district serve; and respondents to the interview questions—indeed, the community as a whole—emphasized that the relative remoteness itself of the city locale was an

impetus for the collaboration. “We are all in this together,” was their attitude to the venture. “Therefore, we need to work in tandem in order to meet all our common *and* respective needs.” As a college administrator explains:

Specifically in order to go forward on ATC, the college went for it [because] this was an area in particular by geography challenged by a micropolis of incredibly well-educated people and a large number of growing businesses in a growing area, but challenged by the fact that because of its size it is limited in its capabilities.

Still a different college administrator agrees:

We are at least two-and-half hours away from the closest university, and during wintertime it is difficult to travel. But I think that part of it is [that] the community really does see itself as a piece of the puzzle, that [it] is a collaborative atmosphere here.

A local economic developer adds that “there is a sense up here that we *all* need to be supportive of each other, and it really comes down to communications and relationships.”

Another theme commonly voiced by the respondents is that because the region is predominantly rural, particularly in comparison with many of the state’s cities, it is unable to plan and execute many of the improvement schemes that the latter are capable of. As one local manufacturer has stated:

The biggest. . .shortcoming we have is that being a small community we don’t have the Ford Motor Company, General Motors, the U.S. Steel’s, and other companies that that could be major contributors [to ATC]. We

have a lot of small companies that have stepped up to the tune of anywhere from \$5,000 to \$50,000 commitments. But we lack the huge corporation that could finance the whole thing, or most of the project. An ATC faculty member agrees, that “northern part of the state [is] small, rural. We have a limited manufacturing base here, probably not bad; but we can’t afford to do everything we want to do.”

Accordingly, the community knows that it’s rural and relatively remote status means that its service area is extensive, a situation that creates particular logistical challenges when planners attempt to meet the region’s immediate, tactical as well as its long-term, strategic needs. The assistant school superintendent puts it this way: “Our service area is roughly the size of the state of Delaware. So, in square miles it is large, and we serve 26,000 K-12 students.” A retired ISD administrator adds that:

Our geographical size is very large, the size of Delaware; so someone has to go out and call on these various places where these students are. It is difficult to administrate, no doubt: with 19 high schools you run into all kinds of logistical issues.

Put another way, a different school district administrator summarizes this dilemma thus:

We work with a group of 16 different superintendents in a group called Framework for the Future—in our region of public education—and the key element, or motto for the Framework for the Future is to survive locally. We must plan, think, and act regionally, and this gets brought up each and

every year, as we plan and set goals for the region. MTA and ATC are just *minute* aspects of all the partnerships that we have in this region.

Even though the above respondents agree that the size and remoteness of the service region are indeed dilemmas, most feel strongly that the quality of life here is excellent. In fact, several of them chose to move to and work here specifically because of its rural nature. When asked what attracted them to teach, say, at the College, one faculty member speaks for many of these colleagues when he answers, “Well, several factors; but the largest factor is the location.” One of his fellow teachers adds:

This area has been described by many state residents as the “Gold Coast of the state.” It’s really, *really* beautiful up here—and its growing fast...

lots of good people, lots of beautiful resources, and so those were real big attractors. I think it’s kind of an interesting place. I’ll be really honest with you: part of the romance and charm of the place is its isolation, because it’s geographically isolated.

A school district official concurs: “It’s a quality-of-life issue: we have a beautiful region and a wonderful place to live, and the people are great. The quality of life is what brings people here.”

Each partner felt that location played a key role in the overall collaborative process. Due to a large service area and a somewhat isolated location the collaborative process was enhanced.

Common Sense

Several important features thus identified reveal that many respondents have concluded that common sense alone dictated the move toward collaboration in order to satisfy the participants' individual and collective needs. For example, one means by which student's needs were met was for the partnership to offer concurrent credit for the skills that they learned at the high school level. As one ATC teacher has pointed out, "From the community's perspective, why should they [students] repeat something that they have already acquired the skills for? Which makes sense!" He goes on to say:

I think probably the common ground that we share is the students. I think one of the perceived gains is having high school students and college students working together—and the college student being an adult anywhere from 18-58—was hopefully the motivational tool for the high school students. Seeing that there are people that don't *have* to be here [but are] taking advantage of it, may be having a maturing effect on them, saying, maybe I should make the best of this.

An MTA faculty member adds:

I think it's a great partnership for students, I really do, because the manufacturers are partners, the students get experience in the workplace; they also get to actually work with adults who aren't their parents or teachers and earn a level of respect. It also gives them experience versus learning—*authentic* learning—which makes sense.

A retired ISD administrator said in this regard, “The obvious reason to collaborate is to make better opportunities for young people and make connections.”

The combining of programs and facilities makes the greatest sense to respondents, as indicated by a college administrator stating that “we had agreed again on the basis of space, [for] it made more sense to go and partner on the fact that we have common labs.” A different college administrator makes the identical point:

The administrations of both the ISD and the college saw that by combining programs and facilities. . . would be a way to reduce costs. So, it wasn’t only the general perception of the community that we were trying to respond to, but it was also the realization that we just don’t have the funds to replicate services that could be combined...Clearly the ability to not duplicate either a facility or capital cost is a very important benefit to us.

Still another college administrator agrees:

The only way to meet the needs in some of these key occupational areas is going to be through a partnership where we can share facilities with business and the ISD and share instructional expertise from both as well.

A retired school district administrator elaborated, “we also trade facilities, let’s say a photography class over at the college doesn’t have a place to meet, we just give them our lab and they meet over here and same way back and forth”.

A school district administrator adds: “There is no way we could do it alone. There is no way the college could do it alone. So it was natural to look at [it in] the terms of *shared* resources.”

The College and the school district took the principle of collaboration one step further, when they decided to merge their occupational, educational, and advisory committees, which action reduced unnecessary duplication of staff between the boards. An ATC faculty member makes the point that because it seemed a very reasonable action, “this year we started to combine the advisory committees for the high school and college machine tool programs.” To which a school district administrator added:

Now what we have tried this year, we said, “Why don’t we have joint or merge our advisory groups? Why does the college have a machine tool advisory council and the career tech center. . .an advisory council of the same people? Why don’t we do it together? So we did that this year in machine tool, and it was very successful—very successful. So we are looking to do similar things in other shared programs.

One of the obvious benefits of collaboration, and one that makes great sense, are the savings experienced by regional taxpayers. A now retired school district administrator explains:

There is certainly a benefit to the taxpayer if we don’t continue to proliferate the same thing [duplicate programs and facilities]. . . .We decided way back when that we shouldn’t in a community this size—we shouldn’t be duplicating facilities where it wasn’t necessary, and we’ve been somewhat successful in that. We still have some duplication, which from a taxpayer standpoint you would rather not have.

A school district administrator concurred,

I think the primary benefit is efficiency. Anytime you can get partners together who are doing the same things; you are going to avoid some serious duplication. I have mentioned a lot of programs that we are doing with the college that otherwise each would be doing separately. We have articulation agreements for almost everything we do at the career tech center. That saves certainly parents and students lots of financial costs and ultimately gets our business partners the labor force that they want a lot sooner and so this is all about efficiency. Efficiency is in my mind quality.

A retired school district administrator added,

The city, the county, the school district and the college all sat down and talked about some things they could collaborate on and save some money on and cease to have so much duplication. When I received my job in the early 90's, there were these oh by the way we want to merge some programs with the college. So we did for the reason of sharing equipment, sharing staff, and sharing dollars.

A college administrator stated,

The key to this partnership is that no one can afford facilities on their own anymore, especially if you start calculating the costs of all the equipment needed in a technical facility. So what they have said is that we need to share facilities as much as possible, because we can't afford as a community to have two robotics classrooms or two machine shops or that kind of thing.

The same college administrator went on to say,

I have to say that there really is an understanding in the community over time that these public institutions are really trying hard to be efficient through partnership and that we are not double dipping and duplicating each other.

Rather handily summing up this overall argument, a local manufacturer said:

At one time we had two separate machine tool labs. We had one at the high school, and one at the college; neither of them was full. So we said, This is crazy! We've got double the equipped labs, taxpayer dollars going to two places! And so we combined the welding and machine tool labs, and this makes much more sense to me.

Common sense was an oft mentioned rationale for the success of this collaborative venture. It made sense to combine facilities and equipment and to not replicate programs and facilities wherever possible in an attempt to reduce overall costs.

Summary

Several main themes emerged under the heading of the collaborative process. The many stakeholders involved felt that a survival mentality existed and the need for each other by way of location and the fact that state grant funds were received in part because of the established relationship all were factors that enhanced the collaborative process. In addition, respondents made common

sense decisions when it came to the sharing of programs and facilities. The next section of this chapter focused on the many challenges to the partnership.

Challenges

Challenges abound when organizations collaborate with each other. The partnership between the community college, the Intermediate School District and local business and industry is no exception. Individual differences, philosophical differences and communication breakdowns are a frequent occurrence.

Anderson (2001) and Maurrasse (2001) argue that both academic institutions and business organizations can become quite frustrated with the intrinsic perplexities of collaboration.

One of the most often mentioned challenges were the intricacies of relationships between the partnership's entities: business and industry are different from education and within the educational umbrella higher education differs in many respects from K-12 school systems. Therefore, the challenge focused on this principle: whether or not the participants were able to blur these traditional boundaries and learn how to function in a different environment determined to an important extent whether or not their shared experience became successful. Funding, becoming a "victim of one's own success", articulation and location are explored in this section as well.

Relationships

The most commonly mentioned challenge centered on the relationships involving the stakeholders of the partnership from all sides. The challenges took various forms—(a) a general lack of understanding of individual operating

procedures and goals, (b) partial and at times (even if only momentarily) complete breakdowns in communication, and (c) stiffening of the necessary flexibility by which facilities and associated materials were to be coordinated.

Procedures and goals. A college administrator addressed the lack of understanding of individual procedures and goals:

One of the problems with relationships is that too often people aren't very clear about what they can or cannot do. So what ends up happening is that we muddle our way into a solution or *lack* thereof because we were afraid to go and state up front what our parameters were. If you state the parameters very clearly up front on what you can or cannot do—whether it's a collaboration with the intermediate school district or with business for training you can do—you end up with a lousy agreement. Because if you didn't lay out parameters, we are now having to muddle through because the devil is in the details. If you haven't worked out the details, it makes it miserable.

The overall lack of understanding was heightened as a result of differences in the way each entity tended to do business. A school district faculty member stated, "there was resistance from traditional staff members (at the college) who didn't want to change their curriculum". A retired school district administrator point blankly blamed higher education for failing to adapt.

I think one of the biggest for sure the traditional structure of the college. It was easier for me at the K-12 level to try new things without all the

bureaucracy that the college environment faced. Traditional college structure is a big one (obstacle).

Personnel and political issues can contribute to a general lack of understanding of operating procedures and goals. An ATC faculty member pointed out a potential problem when he said, “hopefully you are working with someone who thinks along the same lines as you and you can work together, you know personnel, the bigger the group the harder it is to reach consensus.” A different ATC faculty member felt that it took committed personnel to make a collaborative venture successful. “A downside to the partnership is that it is labor-intensive.” A school district administrator added another variable when he said, “there are political issues here and sometimes these can not be overcome”.

Attitudes and personalities play a role in whether or not personnel from different educational entities can get along in a cooperative manner. A retired school district administrator elaborated a difficult situation with one of the combined programs between the college and the school district.

Another program we put together was machine tool. That one didn't work very well because from the get go the instructors didn't work very well together. They didn't particularly like each other and their styles were very different and it was a problem. Other than administrators just saying “guys this is the way we are going to do this, we've got one lab, this is it, you are gonna both live here”. But they never lived there well so the partnership wasn't real good. Now one of the instructors has rotated on out and retired, and now the partnership is right back together.

A school district administrator summed this section up when he said, “K-12 versus higher education is well, difficult to mesh and that ranges from policies to procedures to funding”.

Breakdowns in communication. A breakdown in communication is the next relationship challenge to be reported on. As one school district faculty member has remarked:

Sometimes there is a lack of communication between the college and us, and we need to be aware of the fact that maybe we can't assume that everyone is on the same page on every issue. We all, I guess, need to do a better job of communicating with each other, just to make sure that we are aware of each side's issues and where we all stand.

A school district administrator added,

We don't do enough of it (dialogue) that is significant and I think that is the weakest thing. The administration at the college and school district get going their own directions and then we crisscross paths and often times its not enough.

A college faculty member added that “anytime decisions are made that affect an individual or program or operation, you feel better if you have some input in that decision. That has not always been the case.”

Reduced Flexibility. Another challenge that the members of this partnership encountered was their own lack of flexibility, or in other words their shared inability to accept new or interesting ideas and thus to adapt to what the college administrator, above, has called recalibrated “parameters.” Such a

situation emphasizes, of course, the inherent relationship problems that arise when traditionally separate institutions—academia, business, and industry—attempt to merge into necessarily intricate matrices of collaboration of one form or another. A school district’s administrator has emphasized this very point:

I think we have the ability to adapt more quickly than they [the community college]. We can change what we do more quickly; based on their structure, they are very traditional. The director is working hard to kind of break that mold, and he is doing a nice job, and I think they have done some things [in order] to be more flexible and to be able to adapt more quickly as some changes are needed. But at the same time, they are kind of stuck in a governance process that. . .sometimes just stops them. So, we have to accept the fact that sometimes it’s going to work and sometimes not.

A high school faculty member agrees with this somewhat critical finding and adds that:

We have run into flexibility issues, especially when it comes to articulated credit. It is frustrating because the potential is here to do so much more for our students and maybe giving back to the MTA council for donating money and employees.

A college administrator thus represents the underlying puzzle:

The college is pretty much of what you would call the traditional general education orientation, and that is a particular challenge because of the fact that today the world as we know it is evolving very, very differently. The

original intent of the ATC was supposed to provide high-skill, high-wage and high-demand jobs for this particular area. The ATC has been described as the “destabilizing force” within the college. . . .[because] we are challenging all the traditional academic paradigms that have existed. ATC really represents the fact that we have to straddle these traditional views while, more importantly, creating new definitions of who the learners are. Not everyone is ready for this to happen, as you can imagine.

When collaborating people sometimes find it difficult to change the way they do business to meet the other side’s goals. Sometimes this lack of flexibility is on the program side, while other times it involves the personality of the individuals involved. A high school faculty member commented on both of these issues when stated, “not being flexible enough and they (the college faculty) would have to learn a new curriculum” So the opportunity to further the collaborative effort was lost in this case.

A college administrator described the role that an individual’s personality plays in lacking flexibility.

Every once in a while we get a particular individual who has it in their mind they are going to make a mark for themselves. If they have an attitude that is more self-centered as opposed to collaborative, it can be difficult. Sometimes we get a person coming into the community from someplace else and doesn’t realize the culture of partnership that we have here.

So, the intrinsic complexities attendant upon the individual nature of separate organizations creates larger problems for their partners and for

themselves as well in day-to-day operations of the collaborative enterprise.

Situations therefore arise wherein one otherwise well-intentioned partner blames another for this or that particular dilemma either through a breakdown in communication, lack of flexibility or resistance to change.

Funding Challenges

Funding—and the lack of it—became yet another factor in the respondents' comments on the challenges that the collaborating partners encountered; although in several instances lack of funds helped various entities to initiate partnerships. Slaughter and Leslie (1997) revealed that between 1969 and 1990 funding to universities and colleges from the federal government fell from an average level of 19.2% to 12.2% of overall operating budgets. Such loss forced higher education to seek alternative sources of revenue, which led in many cases to the formation of partnerships with other educational institutions as well as with business and industry.

One of the most challenging features in funding the ATC facility is the lack of a clearly defined system whereby the individual partners would be directed. That is to say, ATC is guided by the general operating budget of the community college, but the school district programs and staff are operated by the ISD budget. Both entities benefit from contributions made by local businesses and industries, but they nevertheless compete against one another for private funds that will supplement certain individual programs. A high ranking college official summarizes the complexity of the funding principle thus: "From an operational standpoint, there really is not what I'll call a 'funding partnership' of any material

importance, and that is an issue we are talking about.” A school district administrator adds:

We need a plan for shared resources. You know, when something comes up and for instance you need a new CNC and machine tool: how are we going to go about this? Are they [the college] going to look to us to purchase it? Are we going to look to them to purchase it? Do we do it *shared*? There is no format, no formula; it is really up in the air regarding that.

A different school district administrator agrees, adding that:

I am concerned that our business partners are tapped out, and so we are going to have to cultivate new people. You can only go to the well so many times, and then you have to find a *new* well. I think it would make more sense that these people [business and industry] are reporting for operations’ purposes to one entity.

This notion would certainly make the lines of demarcation between budgets more clearly focused and thus allow all the partners to gain a deeper understanding of just how much money were available and from where, and just to which facility and activity it should be directed.

Additional reductions in state-sponsored funding may lead to more frequent partnering and thus more widespread sharing of equipment and facilities. A college administrator has mentioned in this regard that:

An obstacle that potentially could impact us is funding from multiple perspectives. Many of the state’s grant funds are in jeopardy; it’s a

challenging time for education. Funding is really going to be an issue for everybody. This state is looking at what I call “structural deficits” for probably at least three years, if not more, and so are a lot of other states. And when you look at your funding model and you look at your expense model, we are all labor-intensive. So, it’s going to be challenging.

A college official concurs:

Our state funding is a problem. Like so many other states, it is in a real downturn. Our level of state funding is actually decreasing. That is causing a lot of stress on the institution: it kind of pulls you into dealing with the immediate as opposed to dealing with the *future* vision.

A school district administrator added, “funding is always a consideration as we are dependent on the taxpayer and the state for our existence”. A college administrator agreed when he stated,

No one is looking at a flush budget. The reality is that funds are limited and this past year the state appropriations for colleges were held flat. You know that college costs go up and when state appropriations, which is about 40% of our funding source, stays flat, it is a serious concern to us.

A school district administrator stated,

Economic times in the state are very tough in terms of school funding. I know that it is a big challenge for many schools in the state in how can we decrease costs and still provide a quality education? And it was the only logical explanation that we turn to the college and the college turns to us in trying to reduce costs.

Funding challenges also exist to keep prevailing programs, facilities and equipment current or to expand them. An advisory council member stated, “I think that the biggest obstacle we have right now is funding to keep things going”. A local manufacturer adds, “we need to set up an annuity type arrangement to help guarantee funding down the road”. A high school faculty member said, “probably the biggest challenge is for us to keep the equipment up with the changing technology. The cost of our equipment is astronomical”.

However, one positive note in this regard is that the local school district is funded each year by a regional charter millage, which principle a school district administrator explains thus:

As far as resources [go], we are lucky here how we are funded. ISD's are fortunate—we are talking about a regional, charter millage. . . .somewhere way back, someone had the wisdom to pass a charter mill: one mill for career and technical education that is separate from the regular millage. Once it's voted on, it's never voted on again: it just *stays*. Now “charter” means “forever.” We are right now with the funding mechanisms for the state becoming shaky; we do very well locally for career technical education. The college isn't funded like that, so we have always thought we could be a good change agent because we've got a little revenue to put into the process.

A “mill” is equal to one-tenth of a cent and is a unit of tax that most municipalities and school districts have in place to fund their operations. These “mill levies” are usually approved each year by voters in the assigned area or district. When

used as a property tax rate one mill produces \$1 for every \$1000 of a property's assessed evaluation (Leslie & Fretwell, 1996). In some cases mill levies are defeated or a lower rate than what is proposed is approved, thereby affecting funding. One can then see the advantages to a fixed or charter millage that the ISD enjoys for vocational education.

This "millage" will continue to fund the ISD occupational educational programs and may also provide the impetus for enhancing existing partnerships within the different entities as revenues for higher education are being reduced. Moreover, the downturn in the economy—state and national—has reduced the funds that local businesses can contribute toward educational programs. A school district administrator has therefore stated that "machine tool people are tight right now; things are down, so their ability to kick in with dollars may be limited right now because of the economy." Funding, therefore, will continue to be a particular challenge for the individual partners who are the focus of this study: each of course has its own and thus unique process of securing funds, but in today's economy all forms of revenue are to a viable extent in jeopardy, whether the funding derives from businesses or from federal, state, and local governments.

"Victims of Our Own Success"

A common theme that emerged from the respondents was that the Manufacturing Technology Academy or MTA had paradoxically become the victim of its own success. That is to say, the MTA was created in conjunction with local business and industry in order to provide select students access to a broad

range of technical skills within the format of an integrated curriculum. This integrated program, housed in the ATC facility, was designed to provide internships in local businesses and well as a monitoring program coordinated with the greater manufacturing community. The goal was therefore to bring more highly trained individuals into the workforce, within a program overseen by the MTA Council, comprised of local manufacturing and education representatives and designed originally to create the curriculum and to identify the equipment necessary for the practical implementation of this curriculum. Local businesses and industry were then to begin a capital program that would assist in the purchasing of the equipment, the community college's role therefore one of providing necessary classroom space and investigating the principle of awarding credit from the MTA activity towards college classes.

The MTA program was implemented in the late 1990s and remains a national model for similarly integrated curricula. Nevertheless, students who participated in the program—many of whom not had considered a college education prior to their introduction to the innovative ATC plan—were exposed to a variety of technical skills taught by expert industry personnel themselves and decided, much to everyone's surprise, to continue their *academic* training, particularly in pre-engineering programs, and not to make the transition from their technical training to the shops of the local industry and manufacturing firms, as had been the planners' hopes and designs. This prompted some consternation, as an advisory council member reveals:

The manufacturers set this up to try and get a better-educated workforce

in the area and help high school kids understand what manufacturing is. Then we would try to educate these students, and hopefully they would stay in the area and you could build a more knowledgeable workforce that would help out local manufacturing. . .I don't know that that is exactly what has happened, because most of the students end up going to college, and a lot of them end up going to engineering [for] there is not that much of a job prospect here.

A retired school district administrator agrees:

Another problem we had is an unintended result of the academy. We started it out thinking we'd get a certain number of engineering-bound students, but we were really trying to train technicians that would do two-year programs and get into technical areas that everybody was crying for. And our history now has shown that what we are really good at is creating potential engineers and we're not nearly as good at potential engineers. Part of the problem is that we've been able to raise the educational expectations of the students, and some of the ones that are coming in are saying, "I'm gonna get a two-year degree." When they leave here they say, "The heck with that; I'm gonna be an engineer type of thing." So they go. It's not a bad unintended result; it's just the way things have turned out.

A college administrator discussed the benefit achieved as a result of the integrated curriculum provided by the Manufacturing Technology Academy. He stated,

they (MTA students) became victims of their own success. What they found was integrated education works so darn well, all these non-college bound students have failed miserably at their designated appointment to go out and work for industry. Instead they are all heading off to four-year engineering programs.

One of the concerns that has developed as a product of this anomaly is how long will the local manufacturers continue to support this endeavor if they don't start seeing trained workers in their businesses. A retired school district administrator points out:

The biggest obstacle I see so far is the students going off to universities and not staying and working for manufacturers here in the area. I don't know how long the business community will be able to support the MTA if they don't start to see some return. It only makes sense. However, at this point they are still in our corner, but I don't know for how long: that really concerns me.

Accordingly, one local manufacturer and an advisory council member respond:

I guess the surprise to us was that almost all of them [the students] are going into four-year institutions and very few are going into the workplace immediately. And this was a little bit of a disappointment to the manufacturers, because the manufacturers had stepped up to the plate, put this time and money and everything in, hoping there would be more of an immediate filling of need back to the community. But that has not deterred them or stopped our efforts. We realize that there is a

time period where eventually there will be people coming back into these apprenticeship-type programs as well as going on to four-year degrees.

The college has a stake in this surprising turnabout as well. In addition to its housing the program at the ATC facility, one result that college had anticipated was an influx of students who had completed the academic program choosing to attend the college while working simultaneously for local manufacturing firms. However, the school's anticipation has gone relatively unfulfilled, as one college instructor has indicated:

We hoped and we are still hoping that the college will see students coming from this partnership with MTA. If they are in our facility and see what we do and they see [the] value in going on, we are hoping they see value in going *here*. . . .The MTA students tend to be more pre-engineering-bound; they don't tend to come into our occupational programs in large numbers, [but] we've got a few. But the ones that have come in have been excellent students. The prep has been great.

A college administrator agrees: "We created a program, anticipating a certain behavior on the student's part, which didn't materialize except for a couple of students."

One may therefore understand the irony in the MTA participants claiming that the program has indeed become victimized to some degree by its own success. The future of this collaboration could depend precisely on the methods by which the individual partners meet this unusual challenge.

Articulation

The next entry in the list of challenges that the partnership, which this study has focused on, has faced is that of articulation between the College and the Intermediate School District. Several respondents identified this as an obstacle impeding the progress of the overall plan and scope of the collaboration. A school district administrator stated, “we can never really get enough of articulated credit”. A school district faculty member agrees, “One frustrating thing is the lack of articulation of our coursework to the college. This could really be a nice situation for the school district, and the college and of course the student”.

The ideal situation was that an MTA student's course work transfer into existing programs and classes at the college, but as a school district administrator has explained:

One of my disappointments [is that] I don't think that we have followed through on the second two years of postsecondary as well as I would have liked to have seen and what was initially promised. I think that's partly the fault of the design, and I am not saying that in a negative way because ultimately good things have happened and students have gone on.

Another administrator adds,

Essentially we set up the MTA program where the ISD would run the program for the first two years. The college then had two years to set up a college piece of the MTA, [but] the reality is from that day to this we have not been able to successfully move the MTA model from the K-12 arena

into the postsecondary. We have made two distinct attempts at it and haven't been able to get it off the ground.

The frustration from the school district is again evidenced through this ISD instructors comment,

The 2 + 2 program which we started, which was part of the manufacturers' request when we first started up, is now defunct. We tried several approaches; the college even hired an instructor through grant money, [but] the claim was that no one signed up; and that was true, enrollment was low. Part of the problem was that the program at the college—after two years, that was it. You couldn't go from there to a bachelor's degree anywhere; I mean it was a dead end.

From the manufacturing perspective, the articulation issue was not any better. One local manufacturer noted the following:

The college provided the facility, and from the get-go we were to have what we call a "2 + 2 + 2 program," [but] we have not been real successful on the last two stages. Even the National Science Foundation has noted that we have not been able to be successful at that second two years. But we have been very successful at the two-year high school program. But to tie it in with the community college and then onto a four-year program—that natural steppingstone of a "2 + 2 + 2" has not really occurred.

A different manufacturer agreed when he said,

We have been very successful with the 2+2 at the two-year high school program. But then to tie it in with the community college and then onto a

four year program, that natural stepping stone of a 2+2+2 has not really occurred. What we have seen is the kid getting through the high school program and either immediately going into industry or going onto four-year institutions at other schools typically.

A retired school district administrator sums up when he stated, “the +2 part of the MTA has not been a smooth thing”.

The College response was different as pointed out by an ATC instructor, We have a policy at the college, that for \$75 we will allow a high school student to take what he has learned in high school and purchase equivalent college credit. This works in electronics, machine tooling, and welding. It does not work with the MTA group. They don't meet any one of our minimum courses in what MTA does, because they are very broad-based—which was their goal.

To which a college administrator adds:

Because the MTA students did a lot of different things, but did it at a much more superficial level. Things we offer credit for are in much greater detail. Their knowledge of machine tools is such that I wouldn't put them past the basic first module. (Note: most NMC technical classes have 6-8 modules or skill sets to complete before credit is granted, College Catalogue, 2001-2002)

The 2 + 2 agreement has struggled for enrollment as pointed out by one college administrator,

We committed to trying the 2 + 2, but ultimately I think part of it had to do with, we thought the students would be more interested in manufacturing engineering technology. But the caliber of students at MTA was so exceptional that they weren't interested. I don't think we have plans to address this at this time without a more significant market of students: we just cannot afford to invest in it. I mean, we really did try, I think, this past fall, [but] I am not sure we got anyone to enroll.

Frustration over this situation is consistent across the partnership.

Location

The geographical location of the community and the partners played a role in creating challenges as cited by a few respondents. In some cases a large service area created the obstacle, while being somewhat remote caused other challenges. A retired school district administrator stated, "our geographical size, our district is roughly the size of the state of Delaware, so to have someone go out and call on these various places is difficult". An ATC faculty member when asked about obstacles stated, "Location, small rural. We have a limited manufacturing base because of this". Another retired school district administrator concurred when he said, "people from areas like this, rural areas, the first place they want to go for a job is someplace else". In some cases location created obstacles for the partners.

Summary

There were several major challenges to the collaborative process identified in this section. Challenges exist between the different partners as each

entity is structured in a different fashion. This enhances the opportunity for personal differences in relationships in regards to breakdowns in communication, reduced flexibility and differences in attitudes. Funding challenges have increased over the years, especially as revenue from governmental sources as decreased. This makes it difficult for educational institutions to keep programs current or expand them as well as repair existing facilities or to build new ones. In addition, other challenges exist in articulation agreements, location and becoming a victim of one's own success. The next section of this chapter focused on the many opportunities the partnership provided.

Opportunities

For numerous reasons—including, funding, workforce training and the inherent good sense to form multiple partnerships—the citizens of this upper Midwest region have become adept at collaboration; in fact a culture of collaboration has evolved in this area. Accordingly the partnerships that have been formed have been unusual in scope and in fact unrivaled by other similar projects across the length and breadth of both the state and the nation. As a college administrator has stated:

We have discovered in meetings with other colleges that our partnership is fairly unusual. A close relationship between the ISD and the college is somewhat unusual in that it is so collaborative, and I think in large part that has to do with leadership and the relationships that have been established.

A Culture of Collaboration

Throughout the interview process for this study, one of the dominant themes that emerged from the statements offered by the respondents was that a truly collaborative “culture” exists in this area, despite the several difficulties and setbacks that the complex program and its participants have experienced from the planning to the various execution stages. A retired school administrator stated:

The CHAIR Academy (a leadership program for community college leaders) couldn’t believe these partnerships were happening. The college would buy ten computers, ISD would buy ten computers and put them in a lab, and we would hire the teacher and actually send money back and forth. . . .[although] this area is not indicative of the whole state. There are some places where the community college doesn’t have anything to do with the secondary schools. That is not the case here.

Another administrator concurs:

I can tell you there are examples of other places where people can’t even agree where to meet; we don’t have that problem here. Do we have our differences? Sure. But our public schools get along, [and] we all get along with the college. It’s an open exchange of ideas.

Another example that this collaborative culture exists in the partnership occurs when the administration of the ISD and the college consult with each other on a regular basis regarding programs. A college administrator points out that:

we've really done some new things recently. For example, the college president is meeting with the superintendent on a regular basis. He has recognized how important these partnerships are. I meet with the principal of the career tech center on a regular basis. Neither one of us makes a move programmatically on an area that we share in common without consulting each other. In fact, we have actually merged advisory committees.

"Really, the partnership works well!" a high school district instructor happily says.

One of the state's criteria when applying for grant funds for the building of ATC was a strong relationship between the schools and the local business community. A college administrator elaborates,

Well one of the factors to partner to be very blunt was it was a requirement for the state-funding component that went into that building. When the state established the ATC network, organizations applied for funding and there were no colleges awarded funds who did not have as part of the plan a partnership program with a minimum industry and the more common was a multi-partnership within the community.

A college administrator concurs when they stated, "the state said we will give out some grants for ATC's if you can develop a local proposal that shows partnership with business and industry". A local manufacturer adds, "We had gone to the state and applied for this ATC grant and was awarded it based on community support". A college faculty member indicated how important it was to have an already established partnership with the school district,

It was an asset to have them (the school district) because they are very strong partners with business and when the state people came they did a public forum, our auditorium was standing room only. People were lining the walls showing support; that's the kind of support that comes from business. Right from the get go business was there.

Over the years, this collaborative culture has formed a solid foundation in this community. A retired school district administrator said, "basically the college and the school district in the early days did everything on a handshake basis". A college administrator agrees, "we all have this collaborative attitude here". A different administrator concurs with this statement, "I think that part of it is that the community really does see itself as a piece, that there is a collaborative atmosphere here". Still another college administrator summed it up well,

overall, all of us have recognized that we just can't do it alone. If you have an attitude that you are competing against each other, none of you really get anywhere. If you partner it will work, like the whole is greater than the sum of the parts kind of deal. So we all have had a collaborative attitude here, it's kind of like we are all in this together and none of us can do what want to do without the others. So it's an attitude thing that is at the foundation and it really just goes back so far that it is really just part of our culture.

When one partner is courageous enough to tell another that something is not quite right in their relationship, and when they both listen and exchange dialogue on the matter, a true "culture of collaboration" has been born and given

an excellent opportunity to succeed, wherein agreements and disagreements that affect the individual entities and the partnership itself are given their proper forums. Over the years, the different entities in this community have provided many examples of a collaborative culture.

Funding

When it therefore came to competing for the state grant for constructing the ATC facility, the fact that these partnerships were established (a key criterion for such funds) helped secure the necessary grant money. A college faculty member elaborates:

Because the MTA was already in our old facility with us, it was an asset to have them here; [and] because they are very strong partners with business, when. . .the state people came they did a public forum, [and] our auditorium was standing room only. People were lining the walls, showing support.

A local manufacturer adds:

We had gone to the state and applied for this ATC grant, and it was awarded based, again, on community support. Initially those grants were supposed to be for post-secondary, not high school. So the initial response from the people that were awarding this grant was, "Now, wait a minute! This is only for college!" But when they saw how our program was dealing with technology and interacting with the college's program and [that there was] a very, very strong possibility [of] these students going on

from these technical activities of the academy into technical programs at the college, they thought it was a great idea.

A college administrator went on to say:

This was technically a partnership between the state's Economic Development Corporation who originally provided for the seed grant, which was matched by the college's bond issue. It was a \$40 million dollar plus bond issue of which \$4.4 million ended up going into this building (ATC) and match the money that was provided by the state. The school district obviously played a pivotal role in securing this facility.

Funding opportunities were gained as a result of the established partnerships already in existence as a high school instructor stated:

The college did get the funding for this ATC center, and so because our program was already a successful business partnership. . .that was going to be in this building, that was a big help. They used that to help them get the grant to show that there were already sustainable programs in place.

A second instructor agrees:

I think it was on the criteria from the state in ATC funding that the community had to be heavily involved. Manufacturing, construction trades, electronics, I think we had at least two large community gatherings in each of those areas. Overall we had good participation from the community.

A couple of additional opportunities were noted by school district and

college administrators. A college official pointed out the first when addressing future funding possibilities. He stated, “the school district tax base is wider than the colleges so they have the opportunity to get better funding than the college does”. A school district administrator concerned with future funding stated,

We have an additional need for having a plan for shared resources (with the college), you know when something comes up, for instance if we need a new CNC and machine tool, how are we going to go about this? Are they (the college) going to look to us to purchase? Are we going to look to them to purchase? Do we share it? There is no format, no formula; it is really up in the air. There is no three, five, or ten-year plans for capital outlay purchases and that concerns me.

Opportunities were gained for additional funding as a result of the respective parties forming collaborative agreements. This funding came in the form of new grant dollars from the state toward the construction of the ATC and access to funding provided by each partner, otherwise not available.

Workforce Training

Another opportunity presented itself in the form of workforce training. Local business and industry needed trained workers and they felt that the skill levels of the graduates from the school district and community college were lacking. As a result discussions between the academic and business communities were initiated. An excellent example of this occurred when local business and industry leaders met with both the College and the school district when they felt that they were not securing the well-trained workforce personnel

that they had hoped the project would indeed provide them. A school district instructor responds to this point:

They way I understand it, the whole partnership started because the manufacturers were looking for graduates that they could hire without having to retrain them. They approached the school district and the college, and things have grown from there.

An advisory board member concurred, “originally I believe the manufacturers set it up (the academy) to try and get a better educated workforce in the area. A more knowledgeable workforce that would help out in the local manufacturing”. A school district faculty member said, “There was a definite need brought forward by the manufacturers in the area”. A college administrator noted, “the workforce development board was really the one that said we needed more technical training and here are the occupations that we are wanting in terms of high skill, high wage occupations”. A school district official added, “need in the work place (was identified), there was a certain type of employee out there”.

The educational entities had heard from local manufacturers that they were falling short in their attempt to provide a skilled workforce and that nothing was being done to correct this situation. A college administrator stated, “my understanding is that in some respects the college had been not responsive in the fashion that those requestors (business and industry) would have liked”.

A local manufacturer discussing this situation stated,

There is a shortage of workers, but I also think the school system was

hearing a message from manufacturers that every they turned to either the college or the high school, they weren't getting the type of worker or candidate that they really wanted to have as a prospective employee.

A different local manufacturer added,

so the educators much to their credit came to us, the manufacturers and said how are we going to work together...to be able to help develop the kinds of skills, other than technical skills, that you are looking for in good employees. We were looking for a lot of soft skills too, the understanding of commitment that once you receive the job that you need to be there on time.

The ISD agreed with the manufacturer's stance. A school district administrator supported local business and industry when he added,

They (local business and industry) really what I thought put their cards on the table and let us know we probably weren't hitting the target very well as far as preparing our young people for future jobs for their particular manufacturing arena and to satisfy their needs in the future.

A different school district administrator has summed up this feature quite succinctly:

The community college president and I sat down and thought about how [we could] put together a program that really meets the needs of our area manufacturers. But we brought in who we thought were the most influential CEO's throughout the five-county region and had a session, asking them what their needs [were] in the future job market and where

they thought K-12 and our community college were measuring up. And we wanted them to be very blunt about it and tell us if there were areas where we were not measuring up and to tell us if there were areas where we [were]. And this goes back six years. And they really what I thought “put their cards on the table” and let us know that we probably weren’t hitting the target very well as far as preparing our young people for future jobs for their particular manufacturing arena. . .to satisfy their needs for the future. We had lots of educators and people who they would want to send to the table on a regular basis, and a year later the Manufacturing Technology Academy was underway.

After not getting the skilled workers needed, business and industry voiced their displeasure to the educational institutions. After a time of slow response, the school district and community college got the message and developed a dialogue with the local manufacturer’s which ultimately evolved into the current strong partnership.

Multiple Partnerships

I discovered in the course of preparing this thesis that there were *many* such partnerships being formed in the region, and that some had been ongoing for several years, the ATC experiment being thus supported by such an extended “culture of collaboration.” As an administrator of the local school district has confirmed for me, “We probably have well over 500 individuals who participate with us in some form or another through out career tech center.” A retired school administrator alludes to other partnerships:

We had all our computer systems put together. We had Banner, which is the biggest one going, and so it was based at the college and runs on their computer but [is] used by the college, ISD, and the City Public Schools. So all three of us were sharing the same thing. We paid our annual fees together and had a handshake deal. Another partnership we were all together is the “one-stop.” So, all the people involved in the “one-stops” all the way from the Mackinaw Bridge, which is 125 miles north of here and [is] just a monstrous chunk, ten counties all wound up working for the intermediate school district through the state’s funding formula. So that in itself is a huge partnership. I mean, those people deliver all those welfare services, all of those job-creation services!

A school district administrator added,

we work with a group of 16 different superintendents in a group called framework for the future for our region in public education and the key element or motto is to survive locally, we much think and act regionally. This gets brought up each and every year as we plan and set goals for the region. MTA and ATC are just minute aspects of all the partnerships that we have in this region. We have some much larger partnerships going on throughout the region.

By sharing facilities, equipment, instructional personnel, programs, advisory councils, and funds, this important “culture of collaboration” expands throughout the region. As a school district administrator states, “The one thing that has been impressive to me is when you get started with one; it opens the

minds of everybody involved about opportunities.” To which a school district official adds, “I think the main thing in this collaboration is that we are allowed to see what a quality partnership can do.” A college administrator agrees: “An ongoing partnership allows you to have much better strategic information and therefore make better strategic choices on an ongoing basis.”

Summary

There were several opportunities identified as a result of this partnership. Opportunities involving funding, workforce training, and multiple partnership occasions all were recognized by key stakeholders. But the most intriguing opportunity acknowledged was that this community had over time developed a culture of collaboration. This culture of collaboration is the key to the success of this partnership.

Summary

This chapter presented the data from interviews with 17 key stakeholders involved in a collaborative venture between a community college, a K-12 school district and local business and industry located in the upper Midwest. The chapter was divided into three thematic sections, the collaborative process, challenges and opportunities.

The first section, *the collaborative process*, was evidenced through the respondent’s beliefs and practices that by having a survivalist mentality and bound by location, that it made great sense to share facilities and equipment. By having these beliefs, funding was reduced by not duplicating facilities, equipment and programs and it was increased through the fact that established partnerships

ultimately contributed to the receiving of state funding towards construction of the ATC facility.

The second section of this chapter was *challenges*. Challenges were found in relationships through resistance to change, breakdown in communication and lack of flexibility amongst some of the stakeholders. Funding challenges were highlighted as funding from the state has been reduced and a lack of a clearly defined funding system for the ATC facility was noted. Other challenges identified included articulation, discovering unintended results and through location.

The third section of this chapter focused on *opportunities*. Stakeholders recognized that as a result of partnering existing and additional needs had a better chance to be met. Funding opportunities as a result of partnering were cited as well as the opportunity to better identify training needs in the workplace. A key component to these enhanced opportunities was identified by stakeholders that a collaborative culture had formed over time in this area. Several respondents indicated that this collaborative culture was the key to the many successes involving the respective partners.

CHAPTER FIVE

ANALYSIS

In this chapter I analyze how an institution of higher education collaborates in an attempt to gain a better understanding of how higher education partnerships form. The analytical lens used was *Resource Dependency Theory*.

At the core of this study were five guiding research questions:

1. Why do institutions of higher education collaborate?
2. What factors contributed to the formation of these partnerships?
3. What benefits are gained through collaboration?
4. What obstacles are there to prevent or hinder collaboration?
5. How useful is Resource Dependency Theory in explaining the formation of partnerships?

The analysis presented in this chapter answers research questions 2 through 4, first for they serve as a foundation for answers to Question 1. Question 5 is answered in Chapter Six.

What factors contributed to formation of these partnerships?

Individual survival was a main motivating principle for all the participants in this collaborative venture. Each partner understood that to be successful a strong relationship had to be formed with the other entities. A school district administrator summed up this situation well when he stated, "There is no way we

can do it alone. There is no way the college can do it alone. So for survival sake it was natural to look towards each other in terms of shared resources”.

Funding was critical in the formation of this partnership. When the need for an Advanced Technology Center was identified the state required evidence of community partnering prior to granting funds towards the construction of the ATC facility. A college administrator addressed this situation,

When the state established the ATC network, organizations applied for funding, [but if] there were no colleges awarded funds who did not have as part of the plan a partnership program with minimum industry; and more common was a multi-partnership within the community. We needed to have ownership from various stakeholders, so we could ask their assistance in securing the funding.

This was a natural situation for the stakeholders in this area as many already established partnerships were in place prior to this identified need.

Sharing facilities, equipment was another factor that contributed to the formation of this partnership. Already with a strong history of sharing space and equipment, the community college and school district were able to easily incorporate the sharing of equipment within the new ATC facility. A school district administrator stated, “We share equipment; we jointly own the lab. [With the ATC] we have new space and we share the facility and we often times have high school kids and college students in there simultaneously.”

Another important collaboration between the college and the school district was that of shared programs. Sometimes the partners aligned existing

programs and other times it made sense for either the college or school district to add a program to support an existing program sponsored by one of the partners. Through shared programs objectives for articulated credit was easier to establish and thus, grant. A school district administrator summed up this arrangement,

Anytime you can get partners together who are doing the same things, you are going to avoid some serious duplication. We have eliminated a lot of duplication. I have mentioned a lot of programs that we are doing with the community college that otherwise each entity would be doing separately. We have articulation agreements for almost everything we do at the Career Tech Center. That saves certainly parents and students a lot of financial costs and ultimately gets our business partners the labor force that they want a lot sooner.

Location is another important factor that contributed to the formation of this partnership. The remoteness of the region provided an incentive for collaboration. The relatively small size of the community enhanced the opportunity to partner as well. A college faculty member stated, "The northern part of the state [is] small and rural. We have a limited manufacturing base here, probably not bad, but we can't afford to do everything we want to do."

Common sense was the final factor contributing to the partnership's formation. Elements of survival, funding, sharing of facilities, equipment and programs and constraints due to location all provide impetus for collaboration. Respondents spoke of the idea that it just made common sense to partner. A retired school district administrator summed,

The city, the county, the school district and the college all sat down and talked about some things they could collaborate on and save some money on and cease to have so much duplication. So we did for the reason of sharing equipment, sharing staff, and sharing dollars.

What benefits are gained through collaboration?

Throughout the interview process many respondents stated that they felt a true culture of collaboration exists in the region. To support this notion one just has to look at the large number of partnerships in place between the school district, the community college and local business and industry. These collaborative efforts include articulated credit, shared facilities, programs and equipment and serving on advisory boards for each other. People in this region have put aside their differences and competitive attitudes towards the benefit of all. A college administrator summed this up when he stated,

Overall, all of us have recognized that we just can't do it alone. If you have an attitude that you are competing against each other, none of you really get anywhere. If you partner it will work, like the whole is greater than the sum of the parts kind of deal. So we all have had a collaborative attitude here, it's kind of like we are all in this together and none of us can do what want to do without the others. So it's an attitude thing that is at the foundation and it really just goes back so far that it is really just part of our culture.

Funding was another benefit identified by the stakeholders. Funds were saved, pooled and raised within the local business community to better meet the

identified needs of the region, including the construction of the ATC facility. A local economic developer stated,

There is a sense here that we all need to be supportive of each other.

So...when each institution has fundraisers, people from the other one are right there to participate. It's just a great deal of ongoing support that led to the acquisition of the ATC facility.

The next benefit identified was the opportunity for increased workforce training within the school district and the college. This provided a direct benefit to the local manufacturing base. Both the community college and the school district deserved a lot of credit for listening to local business and making necessary changes in their programs to better meet the needs of the business community.

A local manufacturer stated,

There is a shortage of workers, but I also think the school system was hearing a message from manufacturers that they turned to either the college or the high school, they weren't getting the type of worker or candidate that they really wanted to have as a prospective employee.

The last benefit identified was that of the existence of multiple partnerships. As I interviewed the respondents about the partnership that led to the construction of the Advanced Technology Center, it became clear that there were many established partnerships already in place prior to the ATC coming on line. In some cases, many of these partnerships had been in existence for several years. A school district administrator summed this section up when he stated,

We work with a group of 16 different superintendents in a group called framework for the future for our region in public education and the key element or motto is to survive locally, we much think and act regionally. This gets brought up each and every year as we plan and set goals for the region. MTA and ATC are just minute aspects of all the partnerships that we have in this region. We have some much larger partnerships going on throughout the region.

What obstacles are there that prevents or hinders collaboration?

The most frequently mentioned obstacle was that of relationships between the different stakeholders of the various partners. Each entity is structured in a different fashion than the others and the result of this proved to be problematic at times. This section has been divided into three subsections each describing a different obstacle under the relationship category. Procedures and goals is the first sub section. Respondents here indicated the difficulty encountered from time to time when partnership goals were not spelled out or were vague in nature.

Another obstacle encountered was the traditional structure of higher education versus the K-12 model. This was highlighted by this statement from a school district administrator, "K-12 versus higher education is well, difficult to mesh and that ranges from policies to procedures to funding."

The second obstacle under relationships is breakdown in communication. Communication played a strong role in whether or not individual stakeholders perceived that the partnership was successful or not. In some cases

respondents indicated satisfaction with the amount of communication and in other cases communication was deemed to be insufficient. A school district administrator summed up this frustration when he stated,

We don't do enough of it (dialogue) that is significant and I think that is the weakest thing. The administration at the college and school district get going their own directions and then we crisscross paths and often times it's not enough.

The final obstacle in this subsection is reduced flexibility. Challenges crop up when traditionally different and separate institutions attempt to join together and collisions occur as expectations do not always mesh. A high school faculty member agrees with this somewhat critical finding and adds that, "We have run into flexibility issues." Sometimes this is the fault of the organization and sometimes from less flexible individuals within an organization. A school district's administrator agreed,

I think we have the ability to adapt more quickly than they [the community college]. We can change what we do more quickly; based on their structure, they are very traditional. The director is working hard to kind of break that mold, and he is doing a nice job, and I think they have done some things [in order] to be more flexible and to be able to adapt more quickly as some changes are needed. But at the same time, they are kind of stuck in a governance process that. . .sometimes just stops them. So, we have to accept the fact that sometimes it's going to work and sometimes not.

Funding, or specifically the lack of funding, was another obstacle identified by the stakeholders. “Fifteen years ago, higher education received 18% of Virginia’s total budget, a proportion that has dropped to 12% (today) according to the State Council of Higher Education for Virginia” (Burdman, 2004, p. 2). The state (like most in the USA) has significantly reduced revenues over the past 25 years. These reductions in revenue force schools to look hard at existing programs and future needs. Sometimes cuts are made and often new programs or facilities are put on hold. A college administrator concurs,

Our state funding is a problem. Like so many other states, it is in a real downturn. Our level of state funding is actually decreasing. That is causing a lot of stress on the institution: it kind of pulls you into dealing with the immediate as opposed to dealing with the *future* vision.

Another common obstacle that emerged from the responses was that there was a feeling of being a “victim of one’s own success”. The Manufacturing Technology Academy had been created with significant involvement from the business community. Upon completion of the two-year academy, these students would be trained and ready to enter the local workforce. However, many of these students gained valuable skills, knowledge and confidence through the MTA and chose to enroll in four-year colleges and universities outside the geographic area. A college administrator summed,

They (MTA students) became victims of their own success. What they found was integrated education works so darn well, all these non-college bound students have failed miserably at their designated appointment to

go out and work for industry. Instead they are all heading off to four-year engineering programs.

The articulation of credit between the local school district and the community college was another identified challenge. The original proposal of a 2+2+2 arrangement with two years in the high school, two years in the community college followed by two years at a four year school has really not materialized to the level of expectation. In addition, there have been several problems encountered in articulation between the school district and community college alone. A local manufacturer stated,

We have been very successful with the 2+2 at the two-year high school program. But then to tie it in with the community college and then onto a four year program, that natural stepping stone of a 2+2+2 has not really occurred. What we have seen is the kid getting through the high school program and either immediately going into industry or going onto four-year institutions at other schools typically.

Location was the final factor analyzed. The region studied tended to be small and mostly rural, but had a large geographic service area. These issues added to some of the difficulties when working collaboratively. A retired school district administrator said, "Our geographical size, our district is roughly the size of the state of Delaware, so to have someone go out and call on these various places is difficult".

Even though obstacles are present to hinder collaboration, the faculty, staff, business owners, employees and the local community have found ways to

make their collaborative venture a success. Through the years and the varied opportunities to partner, consensus has been reached across the constituency as evidenced by the many collaborative ventures highlighted earlier in this thesis.

Why do institutions of higher education collaborate?

The driving force behind why institutions choose to collaborate is to gain additional resources (Johnstone, 1997; Lynton, 1984; Maurrasse, 2001; Powers et al, 1988; Soter, 1993; Trubowitz & Longo, 1997). These resources usually come in the form of dollars, shared facilities and equipment, access, research or a variety of other forms (Ancell, 1987; Anderson, 1997; Basinger, 1999; Brouillette, 2001; Feldman, 1987; Frazier, 1988; Hall, 1996; Powers et al, 1988; Soter, 1993; Trubowitz & Longo, 1997). This partnership certainly proved to follow the previous examples provided by the above listed authors, especially in the areas of gaining access to additional dollars and sharing facilities and equipment.

Higher Education, K-12 and private business and industry normally reside in a competitive environment. Higher Education and K-12 compete with each other for state funding in a non-profit setting. Business and industry compete with other for profit businesses in very competitive surroundings. More times than not, educational institutions are not involved in collaborative arrangements with business and industry. However, in the partnership analyzed, a collaborative culture exists whereby traditional lines are crossed and an institution of higher education has formed collaborative agreements with a K-12

school district and local business and industry in an attempt to collectively meet each others needs.

Each entity although competitive in nature, chose to collaborate instead of competing against each other. Ultimately this collaboration led to the construction of the Advanced Technology Center whereby all three entities win. Local business and industry are able to get better trained workers in the workplace, the community college gains additional student enrollment through the training and the school district helps provide both industry training and better educated students to attend the community college.

The key analytical lens of this study involved the concept of Resource Dependency Theory. This theory posits that organizations will look to form collaborative arrangements with other organizations when revenues decline to lessen their dependence on the resource provider, in this case the state. This was certainly one of the motivators in this partnership. As stated earlier in this thesis, state funding has declined over the past two decades and in order to meet their identified needs, the school district and community college have collaborated amongst themselves and along with local business and industry in an attempt to meet the needs of their constituency.

Resource Dependency Theory would indicate that organizations both compete and collaborate simultaneously in a competitive environment to pool resources and to provide options to meet identified needs. In the case of this partnership, dollars to build the Advanced Technology Center were not readily available. By collaborating instead of competing with each other, the community

college, school district and local business and industry were able to garner needed funds from the state to provide 40% of the necessary funding for the facility. Without this assistance from the state the Advanced Technology Center would not have been constructed.

The key strength that these cooperating partners exhibited throughout this study was the fact that they thrive in a collaborative environment, not one of competition. Thus, I contend that because these partners exist in a collaborative environment, not one mired in competition, they have spawned successful joint ventures between them. When threatened with declining resources or other roadblocks the partners respond with a cooperative approach as opposed to the competitive model. Based on this research, having a collaborative environment in place is more important in shaping a successful partnership than the decline of resources that organizations are dependent upon.

This area had and still has many joint collaborative ventures in place prior to the studied partnership. There are several reasons other than resource dependence as to why these collaborations were initiated and continue and thus I can not state that Resource Dependency Theory is the sole reason for these efforts. However, I can say that Resource Dependency Theory played a pivotal role in the formation of the partnership that ultimately led to receiving of the state grant towards the funding of the ATC facility.

Based on this study and prior research, I maintain that institutions of higher education do look to form collaborative partnerships with other like and/or unlike organizations when sources of revenue are reduced. Resource

Dependency Theory provides a viable, yet not exclusive, explanation for this phenomenon.

CHAPTER SIX

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND COMMENTARY

In this chapter I will provide a brief overview of the study. This will be followed with conclusions; implications and recommendations; and finally discussion and commentary based on the results of the study.

Summary of the Study

As funding from governmental sources continue to wane, colleges and universities seek alternative modes of funding in order to meet the needs of their constituents (Pfeffer & Salancik, 1978; Salancik & Pfeffer, 1974; Ulrich & Barney, 1984). The principle of Resource Dependency Theory explains solutions to this problem by advocating for specific sorts of cooperative partnerships between institutions of higher education and other organizations (Abrahams, 1993; Ancell, 1987; Feldman, 1987; Lovell, 2000; Pfeffer, 1987).

The purpose of this study was to describe, analyze and interpret the principles and practices whereby an institution of higher education collaborates with a K-12 school district and local business and industry. The analytical lens used was Resource Dependency Theory.

An extensive document review and consultation with an expert in the field of higher education led to the selection of a research site. The higher education institution studied had to partner with other organizations and it was imperative that stakeholders involved in the collaborative venture be willing to participate in

the study. I then compared sites to determine which would be the most similar to my desired professional circumstances.

The data sources ultimately chosen was an upper Midwestern community college along with it's partners. The partners were the Intermediate School District and local business and industry. A written description of the study was sent to representatives from each group to be interviewed and consent forms were signed to grant permission to conduct the study.

Following a thorough review of the literature, interview questions were developed guided by an established interview protocol that yielded information to answer the five research questions. After receiving permission to conduct the study the researcher journeyed out-of-state to conduct the interviews, observe the setting and gather additional documents. After receiving consent from the subjects 17 interviews were conducted and recorded electronically over the course of 10 days. These personal interviews comprised the research method to collect data to answer the guiding research questions. A thorough document analysis was also conducted.

All data collected from the interviews were recorded electronically and then transcribed verbatim by the researcher. Ultimately this data was entered into a matrix, whereby meaningful phrases were analyzed to determine emergent themes and categories (Erlandson, et al. 1993, Lincoln & Guba, 1985). This process brought order and structure to the mass of collected data (Marshall & Rossman, 1999).

Findings

Several factors contributed to the formation of these partnerships. Individual survival, funding, the opportunity to share programs, equipment and facilities, location and the fact that it just made sense to do so were outlined by the stakeholders of the partnership analyzed.

The respondents identified multiple benefits that were gained through their collaborative efforts. These benefits included shared facilities, programs and equipment, enhanced articulated credit opportunities, access to more funding through partnering and increased opportunities for workforce training.

The collaborative efforts were not without problems. The stakeholders listed several obstacles that hindered their respective partnerships. Challenges with relationships led to breakdown in communication and reduced flexibility between the different entities. The traditional structure of higher education versus K-12 and the reduction in state funding for both the community college and the school district were highlighted as obstacles. Being a victim of one's own success, challenges in articulation and location concluded the obstacles section.

One of the main reasons for conducting this study was to find out why institutions of higher education collaborate. The findings of this study confirm those of others and verify that institutions choose to partner to gain additional resources (Johnstone, 1997; Lynton, 1984; Maurrasse, 2001; Powers et al, 1988; Soter, 1993; Trubowitz & Longo, 1997). This partnership certainly aligned itself with this rationale. In contrast some experts insist that higher education and

business reside in a competitive environment especially through the marked increase in the number of corporate universities (Crainer, n.d.; Garger, 1999; Gerbman, 2000; Noble, 1998; Salopek, 1999; Wolfe, 1998). However, in this case, a collaborative culture exists between the community college, intermediate school district and local business and industry in attempt to meet each other's needs. Each partner by nature is competitive but in this case chose to collaborate instead of compete.

Conclusions

This study yielded a vast amount of data from the conducted interviews. The interviews were transcribed, coded and condensed into an array of emerging themes. These themes were then analyzed and sifted even further leading to the following conclusions on collaborative culture, partnerships, funding, Resource Dependency Theory and the interview method.

Collaborative Culture

Throughout the course of this study one of the dominant themes that emerged from respondents was that a true "collaborative culture" existed in this area. Over the course of many years this collaborative culture formed a solid foundation in this community. While dependency on the state for revenue was a reason these partners chose to join collaboratively, it was not the main reason. The key to the partnership was the fact whereby these entities live and thrive in a collaborative environment, and not one of competition. When revenue from the state started declining, these partners responded with a collaborative approach.

Through this research, I contend that to have a successful partnership it is more important to have a collaborative culture present than the decline of resources that institutions are dependent on.

After completing the interviews, I was able to determine that I had entered in mid-stream of a collaborative culture. One of the fascinating results of this study was the level of trust that existed between the various partners. These entities had many established partnerships in existence prior to this analyzed partnership through which the Advanced Technology Center was realized. Many of the respondents mentioned partnerships that went back 10-15 years prior. Over the years, the school district and the community college have an established history of sharing facilities, equipment, staff and dollars to better meet each other's needs, many on the basis of a handshake only. This strong relationship, this culture of collaboration certainly helped pave the way for this studied partnership.

The people involved in the many collaborative ventures are indeed special. I contend that the results of this study are not generalizeable due to the dependency on these people. These people, in this location, and at this time form a collaborative culture that provides the impetus for many collaborative ventures to exist between them. In another point in time, this collaborative culture may collapse. In another location or with different people, a similar study may find totally different results.

Partnerships

Institutions of higher education do indeed look to form collaborative partnerships when revenue from the state government declines. However, this is not the only reason partnerships are formed, nor a guarantee that a successful partnership will be the result. This partnership analyzed in this study was successful in most of the stakeholder's opinions, yet the partnership came up short in several areas according to some. Partnerships are perceived differently by individuals and whether or not the partnership is deemed a success is dependent on the level of engagement and involvement of each particular individual.

Educational institutions are establishing more and more partnerships with other educational institutions and business and industry more today than ever before (Martin and Samels, 2002; Spanier, 2004). Again, these partnerships are formed to gain access to additional resources and expertise, especially in times of declining governmental resources.

Funding

State funding continues to decline all over the country, heading into what some would call a crisis situation, while legislators simultaneously increase the levels and measures of accountability (Greenberg, 2004; Kurz and Scannell, 2004). One college president has been known to say, "we are no longer state funded, we are state assisted" (Dingfelder, 2004, para. 7). This funding quandary certainly provides a rationale for institutions of higher education to look for new sources of revenue and "explore different financial models that rely less

on state dollars and continue forming partnerships with the private sector”
(Spanier, 2004, p. 4-5).

Funding or specifically the lack of funding certainly provided the impetus for institutions to seek out collaborative partnerships. In this study funding played a pivotal role, often being one of the main reasons that the school district and the community college initially looked to partner. However, as the relationship between these community partners strengthened through the success of these collaborative efforts, they started looking beyond funding to seek partnering opportunities because it just made good sense. As a result, funding, while important, is not the only reason partnerships are formed.

Theoretical Frame

Resource Dependency Theory was the analytical lens used in this study. Organizations mired in a resource dependent situation look to collaborate when revenues decline in an attempt to lessen their reliance on the provider (Pfeffer, 1982). Educational institutions are dependent on the state for funding and over the past twenty years state funding has decreased (Benjamin, 1995; Harvey et al, 1998; Hovey, 1999; Leslie & Fretwell, 1996; Losco & Fife, 2000; Lovell, 2000; Nair, 2003; Zusman, 1999). As funding has waned this community college and intermediate school district have collaborated with each other and local business and industry to better meet the needs of their constituency. By collaborating with each other, instead of competing, state grant dollars were awarded that ultimately led to the construction of the Advanced Technology Center which benefited the community as a whole.

Research question number five asked, how useful is Resource Dependency Theory in explaining the formation of partnerships? Resource Dependency Theory is useful to a point when explaining the formation of partnerships. One of the strategies of this theory calls for negotiation of the environment through interlocking joint ventures with other organizations (Pfeffer & Salancik, 1978). This most certainly was the case in this analyzed partnership where joint ventures were common place. However, a strong collaborative culture exists in this area and in most cases respondents referenced this phenomenon as the major motivator of collaboration, not the dependence on financial resources from the state. Thus, Resource Dependency Theory is a way of explaining how partnerships are formed, but not the only way. In this case the collaborative culture proved to be a stronger factor when collaborative partnerships were formed.

Methods

Interviews were conducted with multiple stakeholders on-site in this upper Midwestern community. The breadth of the constituency involved including school administrators, faculty and staff, local business personnel and retired individuals could only be accessed by a visit to the site. The propriety of the method was essential due to my knowledge of the subject and the exclusivity of the interviews. In addition, the observational data that was uncovered could not be obtained in any other way, only through this research.

Implications and Recommendations

Implications and recommendations are the focus of this next section.

Further implications involving Resource Dependency Theory and collaboration as it relates to theory, research and practice have been expounded on. This is then followed with recommendations for future research and practice.

Theory

Resource Dependency Theory was helpful guide to help determine why institutions of higher education look to form collaborative partnerships. As stated earlier, my conclusion was that it was more important to have a collaborative culture or environment in place when seeking to form alliances than to only look to form partnerships when resources were threatened. However, decreased revenue is often the enabler for partnerships to be implemented, thus establishing the opportunity for a culture of collaboration to be developed.

Resource Dependency Theory may not have been complex enough in this particular study. Resource Dependency focuses on only one element, while the context of the partnership studied involved many elements of varying complexity levels. If I were to conduct this study again it would probably be more useful to use a cultural model of organizational structures, a model that either supports a collaborative environment or one that does not promote competition. Lewin's Field Theory (1951) method of analyzing causal relations would provide an interesting lens, as would Hersey and Blanchard's (1969) views on organizational behavior.

Another avenue to make the complete theoretical frame more complex would be to combine Resource Dependency Theory with a management or organizational theory that focuses on the concept of trust. This would provide the resource dependence perspective that is present along with the phenomenon of trust that was in strong evidence in this study.

Research

The ever-increasing number of collaborative ventures being formed today involving educational institutions leads me to encourage further research involving collaboration and partnerships. However, I would recommend that similar studies be conducted using a different research lens. As mentioned above one using a cultural theoretical lens may offer additional ideas on how collaboration and partnerships can be initiated and then in turn successful.

Resource Dependency Theory is organizational based, and as a result generalizeable to other educational situations. I can also see the benefits to attempt to broaden this research into other contexts within institutional departments or individual colleges within universities themselves as they compete for limited dollars within the organization. This theory coupled with other organizational cultural theoretical models might provide a strong theoretical frame for future research.

Practice

One must ask who will benefit from this study? The answer is anyone can benefit from this research. As previously stated, one of the most fascinating discoveries of this study was the existence of a strong collaborative culture and

the deep level of trust that existed between the various partners in this community. These findings were certainly not the intent of the study, yet were vital ingredients in supporting the success of the partners many collaborative ventures. This study did not focus on trust or collaborative cultures; therefore, I am not qualified to speak to these concepts. Further research on the phenomenon of trust and the role that collaborative cultures play in the initiation of partnerships is recommended.

As funding from governmental appropriations continue to decrease the opportunity for collaborative ventures involving educational institutions will continue to rise. As these opportunities become readily apparent, more and more collaborative ventures will be initiated between educational institutions and other organizations with identified needs.

As the number of collaborative partnerships increase throughout the educational world (Martin & Samels, 2002; Spanier, 2004) it would make sense to have experts in the area and those with experience present at conferences or seminars. I could envision a complete conference dedicated only to partnerships. In addition, consultants on the national, regional and state level could visit institutions in their area to help facilitate future collaborative ventures.

As funding continues to decline, I can also speculate that school districts, colleges and universities may develop a staff position that specializes in collaboration. This specialist could work closely with entities that traditionally have not partnered with educational institutions, but because of mutual needs now have the desire to do so. This staff person could be the “expert” on

collaboration and be involved in helping initiate, establish and expand partnerships at whatever level is appropriate. This specialist would be involved in training of individuals from the various partners and be the expert to be called upon if situations warranted.

Discussion and Commentary

Prior to this study the literature has shown that resource dependent organizations may look to form collaborative partnerships when incoming revenue declines. There has been a recent history of educational institutions collaborating with other educational organizations, the military, and business and industry in an attempt to gain more resources. This partnership has a strong track record of collaborating between the community college, the intermediate school district and local business and industry for a variety of reasons. The one constant reason most of these collaborative ventures (including the one analyzed here) are successful is that a culture of collaboration exists in this community. I contend that having a collaborative culture in existence is vital to the ultimate success of any partnership.

This study has expanded on the knowledge base of collaboration and partnering by showing the importance that a collaborative environment plays in the initiation and ultimately the success of a partnership. With this strong collaborative culture in existence, it is safe to say that future-partnering endeavors in this community will be initiated and stand a reasonable chance of being successful.

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APPENDICES

APPENDIX A

Interview Questions for College and School Administrators, Local Business and Industry Representatives

1.0 How organizations partner

- 1.1 What is your role in this partnership?
- 1.2 What are your reasons for participating in this partnership? (probe for multiple reasons)

2.0 Factors that contributed to formation of this partnership

- 2.1 What factors contributed to the formation of this partnership?
- 2.2 What role if any, did financial resources (of any of the partners) play in the initiation of this partnership?
(probe for aspects of resource dependency theory)
- 2.3 Explain how the funding for this partnership works.
(probe for effects of funding on partners)

3.0 Benefits of partnering

- 3.1 What benefits are there to this partnership? (probe for financial, facilities, equipment, access, opportunities, etc)
- 3.2 How would you categorize the collaboration that goes on here?

4.0 Obstacles to hinder collaboration

- 4.1 Who are the important decision-makers here?

- 4.2 How are decisions made here?
- 4.3 What obstacles are there that tend to hinder this partnership?
(probe for specifics and possible solutions)

5.0 Conclusion

- 5.1 What additional needs would you like the partnership to meet?
(probe for political ramifications)
- 5.2 What are barriers to this happening?

Appendix B

Interview Questions for Faculty Teaching within ATC Program

1.0 How organizations partner

- 1.1 What is your role in this partnership?
- 1.2 What are your reasons for participating in this partnership? (probe for multiple reasons)

2.0 Factors that contributed to formation of this partnership

- 2.1 What factors contributed to the formation of this partnership?
- 2.2 What role if any, did financial resources (of any of the partners) play in the initiation of this partnership?
(probe for aspects of resource dependency)
- 2.3 Explain how the funding for this partnership works.
(probe for effects of funding on partners)

3.0 Benefits of partnering

- 3.1 What benefits are there to this partnership? (probe for financial, facilities, equipment, access, opportunities, etc)
- 3.2 How would you categorize the collaboration that goes on here?
- 3.3 Who do you see as running this program?

4.0 Obstacles to hinder collaboration

- 4.1 Who are the important decision-makers here?

4.2 How are decisions made here?

4.3 What obstacles are there that tend to hinder this partnership?

(probe for specifics and possible solutions)

5.0 Conclusion

5.1 What additional needs would like the partnership to meet?

(probe for political ramifications)

5.2 What are barriers to this happening?

APPENDIX C

Interview Questions for Faculty Teaching Outside of the ATC

1.0 Individual roles

- 1.1 What is your teaching field?
- 1.2 How long have you taught at the college?
- 1.3 What attracted you to teach at this community college?

2.0 Training and educational needs

- 2.1 How are your teaching needs being met here at the college?
- 2.2 In your opinion, should higher education be involved in directly meeting the training needs of business and industry?

3.0 ATC

- 3.1 Do you teach any courses involving the ATC facility? If not, have you heard about the facility?
- 3.2 What do people say about the facility?

4.0 Partnership

- 4.1 Are you aware of a partnership involving the college, local business/industry and the local Intermediate School District? If so, what is the general reputation of this partnership?
- 4.2 What do people say about it?
- 4.3 Who do you see as running this program? (probe for specifics)

4.4 What kinds of people attend this program?

APPENDIX D

Request to Interview

Dear _____,

As a doctoral student at Oklahoma State University in Stillwater, Oklahoma, I would like to interview you for a research study that I am conducting. My topic is collaborative partnerships involving higher education with business/industry and K-12. For my dissertation, I am studying the partnership that exists between Northwest Michigan College, the Traverse Bay Area Intermediate Schools and local business and industry. Either Carol Chambers with the school district or Kirk Hornburg, executive director of M-Tec at Northwestern Michigan College, recommended your name to me.

The interview will serve the purpose of providing information to be used by the researcher in the completion of the dissertation process as well as providing information that may be used by the researcher or dissertation advisor in research publications.

The interviews should last approximately one hour. The questions will be asked in an open-ended format that will allow each participant to put their own personal flavor in their answers. All interviews will be tape-recorded and subsequently transcribed by the researcher or paid transcriber.

I will assign pseudonyms for each participant involved in the study. These pseudonyms will be used in all discussions of written material about the interviews. Information gathered during the interviews will be kept confidential and presented anonymously.

Please indicate your interest in participating as an interview participant by emailing me at mcalvert@butlercc.edu. If you have any questions feel free to contact me at the above email address or call me at 316-218-9204. Thanks in advance for your participation.

Sincerely,

Mike Calvert

APPENDIX E

A Case Study in Collaboration: Educational and Industrial Partnerships

Introduction of the Study

The growth in number and scope of partnerships involving education and business and industry has increased over the last two decades. The literature identifies several factors contributing to this growth. Declining resources and the need for better-trained and skilled workers head this list. The purpose of this study is to attempt to gain a better understanding of how higher education partners. There is a need at this point in time to further research the concept of collaboration and the role it plays when different organizations partner. The present study hopes to expand the knowledge base on the phenomenon of collaboration as it relates to partnerships involving higher education and business and industry.

The primary research question that guides this study is: How do educational institutions partner? Support questions include: What factors contributed to the formation of this partnership? What benefits are there to be gained through collaboration? What obstacles are there to prevent or hinder collaboration?

You have been selected for inclusion in this study because of your involvement with the partnership at Northwestern Michigan College. The goal is to learn from your experiences with this collaborative arrangement. However, your participation is strictly voluntary and you may, at any time, decide to withdraw yourself from the study. I respect your right to choose not to answer a particular question or to not participate at all. I will make every effort to insure confidentiality within this study. One means in place to protect your confidentiality is that I will not disclose the name of the institution or organization that you work for in the final report of subsequent write-ups of the results. The use of pseudonyms to protect confidentiality and anonymity will be utilized as well. The tapes and transcripts for this study will be coded to protect your identity.

I appreciate your willingness to be a part of this study. If you have any questions or concerns about this research project, do not hesitate to contact me at the following address.

Mike Calvert
815 Sandpiper
Wichita, KS 67230

316-218-9204

mcaltvert@butlercc.edu

For more information you may also contact the IRB office at Oklahoma State University:

Sharon Bacher

IRB Executive Secretary

Oklahoma State University

203 Whitehurst

Stillwater, OK 74078

405-744-5700

APPENDIX F
CONSENT FORM

I have read the information outlining the research project on educational and industrial partnerships that is being conducted by Mike Calvert. I understand the research purpose, process, safeguards, and that information about my interview will be kept confidential and presented anonymously. I agree to participate.

Name: _____

Signature: _____

Date: _____

_____ I choose to participate in the study, but choose not to be tape-recorded

I appreciate your willingness to be a part of this study. If you have any questions or concerns about this research project, do not hesitate to contact me at the following address.

Mike Calvert
815 Sandpiper
Wichita, KS 67230
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Appendix G

Oklahoma State University Institutional Review Board

Protocol Expires: 6/10/03

Date: Tuesday, June 11, 2002

IRB Application No ED02124

Proposal Title: A CASE STUDY IN COLLABORATION: EDUCATIONAL AND INDUSTRIAL
PARTNERSHIPS

Principal
Investigator(s):

Michael Calvert
9102 South Urbana Ave Unit C
Tulsa, OK 74138

Kelly Ward
316 Willard
Stillwater, OK 74078

Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,


Carol Olson, Chair
Institutional Review Board

Associate Dean

JUN 18 2002

College of Education

VITA

Michael D. Calvert

Candidate for the Degree of

Doctor of Education

Thesis: A CASE STUDY IN COLLABORATION: EDUCATIONAL AND INDUSTRIAL PARTNERSHIPS

Major Field: Higher Education

Biographical:

Personal Data: Born in Emmetsburg, Iowa on October 21, 1958, the son of Duane and Julia Calvert. Married to Jami Taylor and the father of three children, Dane, Morgan, and Austin.

Education: Graduated from West High School in Sioux City, Iowa in May 1977; received Bachelor of Arts degree in Physical Education from Northwestern College in Orange City, Iowa in May 1981; received Master of Arts degree in Physical Education/Recreation from the University of South Dakota in Vermillion, South Dakota in May 1982; received Educational Specialist degree from Pittsburg State University in Pittsburg, Kansas in May 1996. Completed the requirements for the Doctor of Education degree at Oklahoma State University in December 2004.

Experience: Taught Physical Education and coached Football for 14 Years at the University of South Dakota, Dana College, Independence Community College, Indiana State University and Butler County Community College. Associate Dean at Butler County Community College for two years. Currently serve as a Dean for Butler County Community College.

Professional Memberships: Society of College and University Planners

Completed the Requirements for the Educational Doctorate degree at Oklahoma State University in December, 2004.

Name: Michael D. Calvert

Date of Degree: December, 2004

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: A CASE STUDY IN COLLABORATION: EDUCATIONAL
AND INDUSTRIAL PARTNERSHIPS

Pages in Study: 160 Candidate for the Degree of Doctor of Education

Major: Higher Education

Scope and Method of Study: The purpose of this study was to describe, analyze and interpret how an institution of higher education collaborates. A case study using Resource Dependency Theory as the analytical lens was conducted, whereby a community college collaborated with the local school district and area business and industry that led to the construction of an Advanced Technology Center. Seventeen stakeholders from the from these entities were interviewed.

Findings and conclusions: Individual survival, funding, the opportunity to share programs, equipment and facilities, location and the fact that it just made sense to do so were outlined by the stakeholders as reasons to collaborate. Elements of Resource Dependency Theory were present in this study, a “collaborative culture” was found to exist in this area. This culture proved to be of more significance when establishing partnerships than a reduction in revenue from governmental funding sources.

Adviser: Dr. Adrienne Hyle