Findings of a study that examined the roles of business representatives and business educators in establishing collaborative relationships in the 1990s, as perceived by selected secondary and postsecondary business instructors in Illinois, are presented in this paper. An expert panel of 25 secondary and postsecondary instructors participated in the study. The Nominal Group Technique was used as the method for collecting data. The participants identified and ranked 12 roles for business representatives and 14 roles for educators to assume in establishing a new collaborative relationship. Findings indicate that perceptions of roles were based upon multiple purposes. A relationship existed between the roles identified for business and those identified for education, and in many cases they may be viewed as companion roles. Capacity to accomplish the role rather than importance may have determined the rank-ordering of roles. Role perceptions were related to current concerns and contemporary topics in literature. Four recommendations for replication of the study are offered. Two tables are included.
Business/Education Collaboration:
Perceived Roles for Partners

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The purpose of this study was to determine the roles of business representatives and business educators, as they establish collaborative relationships in the 1990s, as perceived by selected secondary and post secondary business instructors in Illinois.

To accomplish this goal, twenty-five secondary and post secondary instructors served as an expert panel. The Nominal Group Technique, developed by Delbecq and Van de Ven, was used as the method for collecting data.

The participants identified and rank-ordered 12 roles for business representatives to assume if relationships between education and work are to grow closer in the years ahead.

The concept of joint efforts requires that educators, likewise, assume new roles in developing positive relationships between education and the private sector. The participants identified and rank-ordered 14 roles for educators to assume in establishing a new collaborative relationship.
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Introduction

Legislators have recognized the need for a new collaborative relationship between business representatives and educators. In fact, Part D of Title II of the Carl D. Perkin's Vocational and Applied Technology Education Act of 1990 provides financial assistance to promote business-labor-education partnerships for training. Other parts of the Act, including Part A - State Assistance for Vocational Education Support Programs by Community-Based Organizations and Part E - Tech Prep Education, provide funds to strengthen coordination between vocational education programs and the labor and skill needs of business and industry.

As a result of the legislative action, cooperation between the private sector and education is rapidly becoming a goal of educators, particularly those interested in vocational education. Contemporary writers have suggested a number of bases for such partnerships including money, vision, apprenticeships, technology, and economic development, as well as consultative roles.

Money

Some advocates believe that the basis for creating future partnerships is money. Indeed, President Bush’s American 2000 educational strategy calls for creating 535 "New American Schools"--at least one for each congressional district (Blount, 1992, p. 22). Bush has challenged American business to foot a large portion of the bill. Others question this role for business. Chris Whittle, Chairman of Whittle Communications, testified at a seminar sponsored by Fortune magazine, The National Alliance of business, and the Industry-Education Council of California, stating:

We are all seriously kidding ourselves if we believe that business-led charity is the answer to the current crisis. It costs $250 million per hour to run American K-12 education. That means all the money business currently spends on philanthropy could run our schools for about 90 minutes. (AVA, 1992, p. 29)
Vision

Others believe that business leaders can help educators formulate a new vision. Garrey Carruthers, President and Chief Executive Officer of Cimarron Business Development Corporation and former Governor of New Mexico, stated:

The biggest institution in America is the public schools. You want them to be visionary after decades of tradition? As a rule, there are going to be a few good principals, a few good superintendents and a lot of good teachers, but you're not going to get the kind of vision we're talking about from the institution itself. That vision should come from the outside. And business should help provide it. (AVA, 1992, p. 29)

Robert D. Kennedy, Chairman of Union Carbide Corporation, also believes that business leaders may help produce change in schools. He stated:

We in business are not teachers or school principals. But we understand organization and how to bring about change. We may be able to do something about the public apathy toward education that exists. We may be able to dispel notions that there are simple solutions. (AVA, 1992, p. 29)

Apprenticeships

A review of current literature reveals numerous examples of collaborative ventures involving business and education. Some of the endeavors involve crafting an American version of the European apprenticeship. Advocates of this type of relationship believe that in addition to supplying the workforce, an apprenticeship system is probably the only way America can ever get to a 90 percent on-time high school graduation rate, because it will meet the needs of students who are not being served by the present education system. Increasing numbers of studies show that many young people who go to college learn complex subjects better when there is an applied learning component. According to Bill Clinton, Governor of Arkansas, the development of an applied academics curriculum is essential to support an apprenticeship program at the high school level and may help more students perform better academically and ultimately go to college and succeed (Clinton, 1991, p. 23). Garret Engine Division of Allied-Signal Areospace Company has hired about 200 students directly from vocational programs in the Phoenix Union School District in Arizona (Denby, 1991, p. 25). A number of manufacturers,
including General Motors Corporation, Ford Motor Company, Toyota Motor Corporation, Chrysler Motor Corporation, and Nissan Motor Corporation, have initiated cooperative apprenticeship programs in recent years (Canton, 1991, pp. 26-27). Other examples of schools and firms teaming together can readily be found in current literature.

**Technology**

Some firms have worked to support and enrich the educational experience of students through more effective use of technology. Between 1989 and 1991, IBM committed more than $77 million in grants of money, equipment, and technical support to improve K-12 education. Grants of cash and equipment have been used to improve teachers' abilities to use computers and develop innovative classroom uses for computer technology, connect superintendents within regions via electronic mail, install computer systems in high school vocational education classrooms, and provide computer technology, educational software and training to an interactive learning program that uses a fiber-optic audio/video system to link teachers and students in rural classrooms across the state (Kranendonk, 1992, p. 28). Some business leaders believe that the business community has a greater stake in the implementation of technology in the classroom. Kenneth G. Docter, Vice Chairman of Price Waterhouse, stated:

> We need to further explore the opportunities for using technology as an interactive teaching tool. We don't simply mean having corporate America donate computer labs for the classroom, but providing educators with creative options to use the latest software and hardware to make education more exciting and relevant for students (AVA, 1992, p. 29).

**Economic Development**

Some individuals believe that new partnerships, or "joint ventures," should contribute to economic development by continually raising the educational level of the current workforce and planning for future economic needs. This requires a partnership that puts companies and schools into long-term relationships and forces educational institutions to focus on clients already in the workforce. Anthony Marty, Manager of Production Technology for
Martin Marietta, believes business entities must be involved with education long enough to make a gain on their capital investment (Griffin, 1989, p. 25). Such joint-ventures are distinguished by the following characteristics:

Vocational schools, colleges, and universities do more than market their own courses or training programs. They are expected to be part of a long term collaboration that offers a full range of education services to a company's employees.

The education institutions may serve a population that expands beyond their boundaries. They offer employers "one-stop shopping" by organizing regionally or locally to offer a coordinated set of education services.

The education institutions are in on the front end of company programs. They become involved in a joint planning process with employers that takes them beyond the simple delivery of educational services. (p. 25)

Proponents of this agenda for business and education acknowledge that many educational institutions are not presently positioned to adequately respond to such broad new relationships.

Consultative Roles

C. J. Silas, Chairman and Chief Executive Officer of Phillips Petroleum Company, while speaking before a group of business educational professionals said, "But we can learn to work together--the nation's businesses and the nation's business educators. We intend to support your efforts and we hope you'll support ours" (Silas, 1990, p. 94). This would suggest a more supportive, consultative-type relationship that has characterized advisory committee/vocational teacher relationships in the past. Treichel, Executive Director of the National Business Education Association, also cited supportive/consultative relationships when she wrote:

Although business and education have not tapped the multitude of opportunities to work together for a common purpose, the two entities have succeeded in a number of mutually beneficial joint ventures. Examples of cooperative efforts are student work-experience programs, staff-exchange programs, on-site training seminars provided by business educators, tuition-waiver programs for employees enrolled in business programs, and placement of graduates in jobs. Still other cooperative ventures include business professionals' service on education advisory committees and business educators' service as consultants to business management (Treichel, 1990, p. 5).
Perceived Roles

New Directions

In the past, calls for stepping up relationships between the private sector and education often ignored why such relationships were needed, what partners were being asked to do, and how efforts of the private sector could best be coordinated with local educational systems. These concerns must be dealt with in the 1990s.

The call for connections between the private sector and the education system is not new. The kinds of efforts currently being advocated, however, differ from those of the past. At least one writer (Hoyt, 1991, p. 451) has suggested that the kinds of relationships that were appropriate in the past cannot be expected to work today. He believes this is true because collaborative efforts currently being advocated must:

1. be aimed at all youth;
2. emphasize skills that contribute to general employability in a society that is increasingly geared toward service, information, and technology;
3. involve people from the private sector as active participants—not advisors—in equipping young people with such skills;
4. require specific training at the post secondary level as more and more jobs require such preparations;
5. respond to the shift of focus by American industries from a national scale to an international marketplace. (p. 451)

The Problem

The purpose of this study was to identify the roles of business representatives and business instructors as collaborative partners and, subsequently, establish the magnitude of importance of the roles as perceived by a preselected panel of secondary and post secondary business instructors in Illinois. In doing this, the investigators also achieved the following objectives:
1. Identified the roles perceived to be important by selected business instructors which will be compared to the roles perceived to be important by selected business representatives at a later time.

2. Initiated a renewed interest among participants to establish collaborative partnerships with business representatives.

3. Identified roles which may be of interest to teacher-educators as they design preservice and inservice teacher education programs.

4. Applied the Nominal Group Technique as a research tool to determine its suitability as a model for similar studies with different groups.

The primary research question was, "If business and education are to form true partnerships, what should be the role of each partner?" Later the preselected panel of teachers was asked to rank-order the roles for each partner.

Scope of the Study

The scope of the study was confined to roles which were deemed important for business and education. Other parties or agencies may assume roles and contribute to the operation of vocational business education programs; however, such roles were beyond the scope of this study.

Limitations of the Study

Some limitations occurred in this study. First, the population of secondary and post secondary business education instructors was limited to Illinois. Thus, an assumption should not be made that the results were representative of all secondary and post secondary business education instructors in the United States. Second, the identification and rank-ordering of roles was based solely on the perceptions of the preselected instructors. The perceptions of selected business representatives will be compiled in a subsequent study.

Definition of Terms

To facilitate common understanding of the terms utilized in the context of the research, the following definitions may be useful.
Perceived Roles

Collaboration--refers to a sharing of expertise by representative of business and education regarding knowledge as to the nature of the emerging workplace and the kinds of competencies and skills that are required for success and knowledge regarding how to organize materials for effective learning, how to relate to students in positive ways, and how to help students learn. Each party is viewed as a consultant and contributor in a cooperative venture directed at planning and achieving educational goals.

Partnership--a relationship between the private sector (business, industry, and/or labor) and an educational institution or institutions in which efforts are coordinated to identify problems, formulate plans for solving such problems, and implementing programs to do so.

Significance of the Study

The 1980s in American education were characterized by proposals for educational reforms. Many of these proposals resulted from the inability of the American educational system to produce graduates possessing the skills and knowledge required in a highly technical, rapidly changing work environment. The Carl D. Perkins Vocational and Applied Technology Education Act of 1990 contains new initiatives, such as tech-prep education, community education employment centers, vocational education lighthouse schools, and apprenticeships, to stimulate reform in vocational education, including business education. To implement reform in the 1990s, representatives of the private sector and educators must engage in joint efforts. Such partnerships are needed to:

1. motivate students to learn and teachers to be more effective by emphasizing relationships between the curriculum and the requirements of today's workplace;
2. encourage students to acquire personally meaningful values;
3. increase educational productivity for both students and teachers by borrowing and applying approaches from the private sector;
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(4) provide young people with the opportunity to explore careers through exposure to the workplace.

The findings of this study may contribute to the partnership movement by:

(1) providing the impetus for causing business education instructors and representatives of business to think about collaboration and partnerships;
(2) providing a list of rank-ordered roles for educators and business representatives which may be accepted or further refined;
(3) providing information to teacher-educators about the perceived roles of partners which may be valuable in designing preservice and inservice teacher training programs.

Method

The Nominal Group Technique (NGT) was used to gather information for this study. The NGT, in recent years, has become popular as a research tool, especially when the beliefs of several individuals must be clarified and aggregated into a judgment or decision that reflects group consensus.

Population

Twenty-five secondary and post secondary business education instructors in Illinois served as the population for this study. The NGT was applied during an inservice workshop which the instructors were attending on July 20, 1991. Instructors participating in the study represented small rural, intermediate, and large urban local educational agencies at the secondary and post secondary levels. Their backgrounds of teaching experience in business education ranged from four to twenty-seven years.

Data Collection

The NGT developed by Delbecq and Van de Ven in 1971 was the procedure used to identify and, subsequently, rank order the roles. The NGT, as applied in this study, involved the following steps: (1) introduction to the meeting, (2) independent and silent generation of perceived roles recorded in writing, (3) round-robin listing of all the perceived roles as recorded by each group.
Perceived Roles

member, (4) group discussion of the collective perceived roles for clarification and mutual understanding, and (5) independent voting on the priority of the perceived roles to mathematically determine a group rating. After the independent groups completed their ranking process, they were assembled into one larger group to rank the top twelve roles for each group. The steps are further delineated below.

Introduction to the Meeting. The facilitators welcomed the participants and emphasized the importance of the study as well as the importance of each participant's contribution. The participants were then divided into four groups of equal size. The following question was then presented: If business and education are to form true partnerships, what should be the role of each partner?

Silent Generation of Perceived Roles. During the second step of the NGT process, participants were asked to independently list in writing their responses to the research question. Participants were given as much time as needed and they were permitted to list as many responses to the question as they desired.

Round Robin Listing of Roles. After the participants had completed their listings, each member of the group was asked to share a response using a round-robin approach. A recorder listed the responses on a flip chart and the round-robin process continued until all roles on the participants' lists appeared on the flip charts.

Group Discussion of Perceived Roles. Serial discussions of each item appearing on the flip charts occurred. The central object of the discussions was to clarify each response and, if needed, to convey the logic or analysis behind the response.

Independent Voting on the Priority of Roles. At this point, participants were given 3" X 5" cards. They were then instructed to select the twelve roles for business and the twelve roles for education that they believed to be most crucial and rank-order them. The most crucial role was
assigned the numeral one, the second most crucial role was assigned the numeral two, and so forth. The facilitator and the recorder for each group tallied the results.

Discussion for Preliminary Votes. After the voting had occurred and the rankings were tallied for each group, the four groups were merged into one group containing the 25 participants. Likewise, the four lists containing roles for business and the four lists containing roles for education were merged into one, respectively, and duplicate responses were removed. Participants were again allowed to briefly discuss the responses for the purpose of clarification.

Final Ranking of Perceived Roles. Procedures followed in the final ranking of perceived roles duplicated the procedures followed in an earlier step, independent voting on the priority of roles.

Analysis of Data

After the participants had ranked the roles, the investigators recorded the numbers which identified each role and the value rating assigned by each respondent to each of the roles. The value ratings were then summed and divided by the number of times the role was ranked (frequency). Thus, composite value ratings for each role represented a mean score. Tables were then constructed so that a comparative analysis of the results could be conducted.

Findings

The findings include perceived roles for the two groups: business representatives and educators. As shown in Table 1, the participants ranked ordered 12 roles which they perceived to be desirable for business partners.

Table 1
Perceived Roles for Business Partners

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Role</th>
<th>Value Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Assist teachers in the establishment of performance standards expected by business employers</td>
<td>2.391</td>
</tr>
</tbody>
</table>
Table 2 contains the rank-ordered roles perceived as desirable for educators to assume in a partnership.

Table 2

**Perceived Roles for Education Partners**

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Role</th>
<th>Value Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prepare student clientele for employment</td>
<td>1.571</td>
</tr>
<tr>
<td>2</td>
<td>Engage in continuous curriculum development activities designed to keep instructional programs synchronized with occupational demands</td>
<td>2.667</td>
</tr>
<tr>
<td>Rank Order</td>
<td>Role</td>
<td>Value Score</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>3</td>
<td>Engage in continuous research to identify and validate competencies which are desired and essential in the workplace</td>
<td>3.471</td>
</tr>
<tr>
<td>4</td>
<td>Communicate with business representatives, students, parents, and the general public</td>
<td>4.533</td>
</tr>
<tr>
<td>5.5</td>
<td>Exert greater efforts directed at marketing vocational programs</td>
<td>5.000</td>
</tr>
<tr>
<td>5.5</td>
<td>Create staff development programs for business and industry clientele</td>
<td>5.000</td>
</tr>
<tr>
<td>7</td>
<td>Seek assistance from business representatives in developing inservice programs for vocational teachers</td>
<td>5.313</td>
</tr>
<tr>
<td>8</td>
<td>Share authority with representatives from the private sector for assisting students, thus creating accountability</td>
<td>5.333</td>
</tr>
<tr>
<td>9</td>
<td>Consolidate the efforts of various professional organizations, including the Illinois Vocational Association and the Illinois Business Education Association and their affiliates, Delta Pi Epsilon Chapters, and other professional organizations, toward the achievement of goals</td>
<td>5.385</td>
</tr>
<tr>
<td>10</td>
<td>Seek on-site training opportunities in business settings for students and also for self-enhancement</td>
<td>5.429</td>
</tr>
<tr>
<td>11</td>
<td>Conduct follow-up studies to ensure accountability</td>
<td>5.833</td>
</tr>
<tr>
<td>12</td>
<td>Assume the role of a liaison person between and among business representatives, school administrators, school board members, and vocational counselors</td>
<td>6.000</td>
</tr>
<tr>
<td>13</td>
<td>Lobby state and federal legislators to provide adequate funding to support educational programs</td>
<td>6.273</td>
</tr>
<tr>
<td>14</td>
<td>Conduct open-houses for business representatives to better inform them and to create dialogue which aids in making them a full partner</td>
<td>7.600</td>
</tr>
</tbody>
</table>

0 = most crucial role; 8 = least crucial role

Discussion

Earlier the point was made that contemporary writers have identified a number of bases as the impetus for business/education partnerships, including: money, vision, apprenticeships, technology, economic development, and consultative roles. Clearly, the roles identified and rank-ordered by
instructors participating in this study are related to one or more of these bases. It should be noted, however, that none of the bases—with the possible exception of consultative roles—was emphasized by respondents in terms of rank-order or frequency of roles. Thus, it would appear that the respondents envision multiple purposes for business/education partnerships.

The relationship between roles identified for business and those identified for education should also be noted. One of the roles for business, for example, was to assist teachers in the establishment of performance standards. The companion role for education was to engage in continuous research to identify and validate competencies. Additional roles, which show a relationship for each of the two partners, appear in the areas of curriculum, delivery of instruction, communication, lobbying legislators, on-site training, and marketing vocational program.

A caution, which relates to the interpretation of the rank-ordered roles, should be cited. While many of the roles for the two partners are related, the respondents appear to have viewed roles for one partner as more important than the companion roles for the other partner. Providing training sites for students, for example, was sixth among the rank-ordered roles for business. Seeking on-site training opportunities in business settings for students, the companion role for education, was tenth among the rank-ordered roles for education. Other examples can readily be cited. However, it should be noted that the major reason for a partnership is to combine the different resources and talents of two or more parties. One party may be better prepared or in a better position to assume a specific role. The rank-ordering of roles, therefore, is more likely to reflect the talents or capacity of the partner to accomplish the roles than the exact importance of each role.

It is not surprising that a number of perceived roles relate to current concerns in the field and topics in the professional literature. A committee of business representatives and educators, for example, has been addressing performance standards for vocational education trainees in Illinois, the top-
ranked role for business partners. Marketing vocational education programs continues to be a major focus at professional conferences and a topic that has generated several articles in recent months. Lobbying state and federal legislators to provide adequate funds has received an increasing amount of attention as many states have slashed budgets in response to a sluggish economy. Likewise, there appears to be a surge of interest on the part of educators in becoming involved in human resource development in business and industrial settings. As a result, one role for educators, creating staff development programs for business and industry personnel, and one role for business representatives, seeking assistance from business educators in developing inservice programs for employers, appeared among the perceived roles identified and rank-ordered. Other contemporary topics receiving greater attention include identified roles, such as the adoption of a school by a business organization, participation by business representatives in "executive-in-school" programs, and improved communication between all parties with an interest in improved educational programs. Because many of the perceived roles are related to current concerns, in a future time period instructors may identify other perceived roles that will be related to future concerns and future topics of interest emphasized in the literature.

In summary, a review of the findings appears to be characterized by four considerations:

1. The perceived roles for business/education partners, as identified and rank-ordered by secondary and post secondary instructors in Illinois, are based upon multiple purposes.

2. A relationship between the roles identified for business and those identified for education exists and, in many cases, they may be viewed as companion roles.

3. The rank-ordering of roles may be more reflective of the talents or capacity of the partner to accomplish the roles than of their importance.

4. Many of the perceived roles appear to be related to current concerns and contemporary topics appearing in the literature. Thus, the perceived roles which were identified are likely to change or be replaced as new and different concerns or topics emerge.
Recommendations

Based upon the results of this study, the following recommendations are provided:

1. This study should be replicated throughout the state of Illinois to determine the degree of similarity or difference of business education instructors' viewpoints as related to perceived roles for business/education partners and the rank-order of such roles.

2. This study should be replicated throughout the state of Illinois with business representatives serving as respondents to determine if the outcomes are in agreement or disagreement with those generated from instructors.

3. Teacher-educators and members of the state supervisory staff for business, marketing, and management occupations should examine the findings from this study to determine if inservice programs should be established to assist secondary and post secondary instructors in the establishment of viable business/education partnerships.

4. This study should be replicated in other states to determine the degree of similarity or difference in perceived roles for business/education partners.
References


