Recent research suggests that a key educational reform step is developing interdisciplinary collaborative inquiry activities. Bringing together professionals representing diverse, interrelated disciplines yields a more thorough understanding of organizational systems. Despite widespread support for interdisciplinary collaboration (IDC), few projects are currently under way. This study aims to (1) discover faculty and administrator perceptions regarding factors influencing current IDC efforts at their institutions; (2) discover these groups' perceptions about factors most likely to promote future IDC activities; and (3) document current IDC activities within Ohio colleges and universities. The study selected 12 representative higher education institutions. Following completion of a questionnaire, 46 participating faculty/administrators were interviewed. A preliminary data analysis was made using qualitative methods. Results showed great diversity of opinion among faculty and administrators. There was, however, general agreement regarding the factors most important to promote future IDC efforts. Currently, administrative structure, the role of funding and institutional priorities, merit and formal recognition, and faculty attitude and autonomy were significant promotional factors. Organizational inhibitors included physical housing, special languages and hierarchical status associated with various disciplines. Current IDC projects included research and grant projects, program development and delivery, governance committees, professional organization memberships, and activities such as joint authorship of books and articles. Future directions are discussed. Included are seven references and an appendix containing the study questionnaire. (hLH)
The Identification of Factors Which Influence Interdisciplinary Collaboration Within Educational Settings

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A paper presented at the 1989 American Education Research Association annual meeting, San Francisco, CA

The research project detailed in this paper was funded by Ohio’s State Superintendent’s Task Force for Preparing Special Education Personnel. Representatives from Ohio’s Inter-University Council/Teacher Education Division (IUC-TED) assisted in the data collection process.
INTRODUCTION

School systems are complex environments in which a variety of individuals, representing diverse disciplines (e.g., administrators, general and special education teachers, school psychologists, etc.) come together for a specific purpose: to provide educational experiences for students.

Throughout history, this system has been widely criticized. Most recently, schools have been called to task for failing to provide the most effective educational experiences for handicapped and other educationally "at-risk" populations. In response to this, and other school-related issues, a variety of national reform initiatives have been undertaken for the purpose of clearly identifying and ultimately addressing the problems within our educational systems (including institutions of higher education). Although specific proposals put forth by proponents of the various initiatives (e.g., The Holmes Group, The Carnegie Commission, Regular Education Initiative) have been challenged, there is general agreement that a change must occur within our schools if we are to provide effective educational experiences for all students.

Simply mandating change does little, however, to provide meaningful direction regarding the processes involved for initiating necessary reforms. Skrtic (1983) and Davis (1988), among others, suggest that a key step toward addressing educational reform should be the development of interdisciplinary collaborative inquiry activities. By bringing together professionals, representing diverse yet related disciplines, a
more thorough understanding of organizational systems will result. It is this understanding which will provide us with the foundation for discussing the nature of educational reform.

Despite the widespread support for collaboration, there are relatively few interdisciplinary collaborative activities currently underway (Watkins, 1989). Reasons cited in the literature for this situation range from a lack of adequate training of professionals in the collaborative process (Ysseldyke & Algozzine, 1982), to the identification of numerous institutional barriers such as, state regulations and categorical orientation of educational personnel (Bailey, 1978; Stainbeck & Stainbeck, 1987). Specific blame has also been directed toward colleges and universities for their lack of collaboration among their own educational preparation programs (Sarason, 1982). This lack of collaboration within our colleges and universities is of critical importance as it is believed that institutions of higher education can and should play a leadership role in the promotion of collaborative activities (Feden & Clabaugh, 1986; Stainbeck & Stainbeck, 1987).

The research project detailed in the following pages is intended to begin a line of inquiry which will further our understanding of interdisciplinary collaboration (IDC). The specific objectives of this study were: (1) To discover the perceptions of faculty/administration regarding factors which influence current IDC efforts at their institution, (2) To discover the perception of faculty/administrators regarding the
factors which have the greatest potential to promote future interdisciplinary collaboration, and (3) The documentation of current IDC activities within Ohio's colleges/universities. As a beginning line of inquiry, it is expected that the resulting findings will serve to evoke additional questions to be considered for future research activities.

METHODOLOGY

Selection of Participants

A total of 12 institutions were selected to participate in this research project. In selecting representative institutions the following demographic variables were considered: (1) geographic location within the state (north, south, east, west), (2) student population (small, medium, large), (3) private or public, (4) urban, suburban, or rural, and (5) types of educational preparation programs offered. Forty-six faculty/administrators, representing a wide variety of educational preparation programs, participated in this study.

Data Collection

At each institution, contact was made with representatives from the various educational preparation programs in order to secure their willingness to participate in this project. Special attention was made to select faculty who played an administrative role within their special program (e.g., department heads, division chairs, program coordinators, etc.) in order to obtain participants who would have the most information about their own
program. Each participant was asked to complete a questionnaire.

The questionnaire (see appendix A) was developed for the purpose of obtaining specific information regarding each participant's perceptions on interdisciplinary collaboration. Interdisciplinary collaboration (IDC) was defined as:

Any effort where two or more individuals representing diverse, but possibly related disciplines, come together for the purpose of fulfilling mutually agreed upon goals. The key terms are "two or more disciplines" and "mutually agreed upon goals".

The questionnaire was divided into sections. In the first section, participants were to supply identification information (e.g., name, current title/position, educational program affiliation, and department or unit). In section two, participants were asked to review specific factors, which were presented in the form of a question (e.g., What effect does the administrative structure of your college have on interdisciplinary collaboration within your educational preparation program?) and then rate their perception of how these factors currently influence interdisciplinary collaboration at their institution. The choices for rating were: 5=very facilitating, 4=somewhat facilitating, 3=somewhat inhibiting, 2=very inhibiting, and 1=not a factor. A total of 15 factors were presented and rated by the participants. The final question in this section asked the participant to list the top five factors, from the original 15 which they felt had the greatest potential for promoting IDC activities at their institutions.
In section three of the questionnaire, participants were asked to list the various IDO activities in which faculty/staff were currently engaged (i.e., among their own educational preparation program faculty, between their faculty and other institutions, and between their faculty and public school personnel). This section focused on documenting current IDO activities in the areas of: (1) research and grants, (2) program delivery, (3) program development, (3) governance committees, (4) professional organizations, and (5) other professional activities.

One additional section was added for select participants (College Deans, Unit Heads, or lead administrative representatives). This section asked for specific information regarding: (1) the demographics of the institution (e.g., types of educational preparation programs and number of faculty), (2) a figure or description of the administrative structure of the college or unit responsible for the governance of the various programs, (3) a description of the physical housing of the various programs (i.e., where faculty offices are located in relation to other educational programs, and (4) various direct questions designed to capture the commitment of the administration toward interdisciplinary activities.

Following the completion of the questionnaire, each of the participants was interviewed. A field representative from the research project visited the institution to conduct personal interviews. The purpose of the interview was to clarify...
responses and/or to obtain more descriptive information regarding perceptions of IDC efforts. All interviews were audiotaped and relevant details from these interviews were transcribed and then added to the original questionnaire. Due to a conflict in scheduling, four of the participants, who had complete the questionnaire, were not interviewed.

Data Analysis

At this time, a preliminary analysis of data has been completed. This initial analysis utilized qualitative methods, which included numerous reviews of individual participant responses for the purpose of identifying the trends or patterns of responses. The only quantitative analysis completed to date has been the reporting of the actual number of responses and percentage of responses. Future in-depth analysis of the various patterns will be conducted with a focus on detailing the nature of the intra-institutional and inter-institutional ratings of individual factors. For example, an analysis of the level of agreement/disagreement among the respondents representing similar educational preparation programs at different institutions, different educational preparation programs within one institution, will be done.

In reporting current results regarding the overall perceptions of faculty/administrators, the major trends or patterns (both in descriptive format and number and percentage of response) are provided. The descriptive information includes sample comments which support a given perceptual trend or pattern
as well as comments which reflect exceptions to these patterns.

RESULTS AND DISCUSSION

Factors Which Influence Current IDC Activities

As is evident from table 1 (p 9), the various factors rated by the participants reflect five major categories designated as: (1) organizational issues, (2) funding resources, (3) priorities, (4) rewards, and (5) faculty issues. In this section each of the individual factors within each category will be addressed.

Organizational Issues

Administrative Structure

With regard to administrative structure of the institution (i.e., how the various disciplines are organized into departments and programs), there was a relatively equal split in perception between facilitating and inhibiting. Comments from those participants who felt their administrative structure was facilitating suggest that even if the actual structure served to divide educational preparation programs from one another, the department chairs exchanged ideas and this process seemed to filter down to the department faculty. Comments from participants who felt their administrative structure was inhibiting current IDC activities indicated that the structure was organized by program missions which could be inhibiting.

Physical Housing

There was a clear pattern revealed in participants' perceptions regarding physical housing of their programs. The
majority opinion was reflected in the comment that geographical separation of programs kept individuals apart and thus inhibited interdisciplinary efforts. The only exception to this position came from an individual at an institution where all of their educational preparation programs were housed within one building.

**Knowledge Structures/Language of Disciplines**

Participants were again split in their perceptions about knowledge structures/language of disciplines (i.e., theories, techniques, and paradigms upon which the various disciplines are based). A slight trend was found toward this factor as an inhibitor, with comments addressing issues such as discipline jargon and lack of a common language. Other participants felt that all of the programs were part of teacher education, and as such they shared a compatible language and research base. This factor was viewed by these participants as facilitating IDC activities at their institutions. There was also nearly an equal number of respondents who felt that this was not a factor which influenced IDC activities.
### Table 1

Factors Influencing Current IDC Efforts

<table>
<thead>
<tr>
<th>LEVEL OF INFLUENCE</th>
<th>Facilitating</th>
<th>Inhibiting</th>
<th>Not a Factor</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACTORS</td>
<td>%/[N]</td>
<td>%/[N]</td>
<td>%/[N]</td>
<td>%/[N]</td>
</tr>
<tr>
<td><strong>Organizational Issues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Administrative</td>
<td>43%</td>
<td>46%</td>
<td>11%</td>
<td>--</td>
</tr>
<tr>
<td>Structure</td>
<td>[20]</td>
<td>[21]</td>
<td>[5]</td>
<td>--</td>
</tr>
<tr>
<td>2. Physical</td>
<td>26%</td>
<td>63%</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>Housing</td>
<td>[12]</td>
<td>[29]</td>
<td>[4]</td>
<td>[1]</td>
</tr>
<tr>
<td>3. Knowledge/</td>
<td>30%</td>
<td>33%</td>
<td>28%</td>
<td>--</td>
</tr>
<tr>
<td>Language</td>
<td>[14]</td>
<td>[13]</td>
<td>[13]</td>
<td>--</td>
</tr>
<tr>
<td>4. Hierarchy/</td>
<td>22%</td>
<td>57%</td>
<td>21%</td>
<td>--</td>
</tr>
<tr>
<td>Status</td>
<td>[10]</td>
<td>[26]</td>
<td>[10]</td>
<td>--</td>
</tr>
<tr>
<td><strong>Funding Sources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Internal</td>
<td>48%</td>
<td>26%</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>Funding</td>
<td>[22]</td>
<td>[12]</td>
<td>[11]</td>
<td>[1]</td>
</tr>
<tr>
<td>2. External</td>
<td>67%</td>
<td>11%</td>
<td>20%</td>
<td>2%</td>
</tr>
<tr>
<td>Funding</td>
<td>[31]</td>
<td>[5]</td>
<td>[9]</td>
<td>[1]</td>
</tr>
<tr>
<td><strong>Priorities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Institution</td>
<td>47%</td>
<td>43%</td>
<td>10%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>[21]</td>
<td>[20]</td>
<td>[5]</td>
<td>--</td>
</tr>
<tr>
<td>2. National</td>
<td>59%</td>
<td>22%</td>
<td>20%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>[27]</td>
<td>[10]</td>
<td>[9]</td>
<td>--</td>
</tr>
<tr>
<td>3. State</td>
<td>59%</td>
<td>35%</td>
<td>6%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>[27]</td>
<td>[16]</td>
<td>[3]</td>
<td>--</td>
</tr>
<tr>
<td>4. Program</td>
<td>48%</td>
<td>39%</td>
<td>13%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>[22]</td>
<td>[18]</td>
<td>[6]</td>
<td>--</td>
</tr>
<tr>
<td><strong>Rewards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Merit</td>
<td>28%</td>
<td>24%</td>
<td>48%</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>[12]</td>
<td>[11]</td>
<td>[22]</td>
<td>--</td>
</tr>
<tr>
<td>2. Reappointment/</td>
<td>35%</td>
<td>26%</td>
<td>40%</td>
<td>--</td>
</tr>
<tr>
<td>Promotion/Tenure</td>
<td>[16]</td>
<td>[12]</td>
<td>[18]</td>
<td>--</td>
</tr>
<tr>
<td>3. Formal</td>
<td>46%</td>
<td>34%</td>
<td>20%</td>
<td>--</td>
</tr>
<tr>
<td>Recognition</td>
<td>[21]</td>
<td>[16]</td>
<td>[9]</td>
<td>--</td>
</tr>
<tr>
<td><strong>Faculty Issues</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Faculty</td>
<td>65%</td>
<td>33%</td>
<td>2%</td>
<td>--</td>
</tr>
<tr>
<td>Attitude</td>
<td>[30]</td>
<td>[15]</td>
<td>[1]</td>
<td>--</td>
</tr>
<tr>
<td>2. Autonomy</td>
<td>29%</td>
<td>44%</td>
<td>24%</td>
<td>--</td>
</tr>
<tr>
<td>of Faculty</td>
<td>[18]</td>
<td>[20]</td>
<td>[11]</td>
<td>--</td>
</tr>
</tbody>
</table>
Hierarchy/Status of Disciplines

The final factor grouped under institutional issues is the perceived hierarchy or status of various disciplines. The majority of respondents felt that this factor did serve to inhibit IDC activities at their institutions. Comments reflect that this hierarchy exists and this has a deleterious effect on collaboration efforts. One comment from a participant who felt this factor was not inhibiting stated that reform efforts such as those proposed by The Holmes Group (e.g., the movement toward Arts and Sciences as a base for education) have alleviated some of the issues related to hierarchy or status of the disciplines.

Funding Resources

Internal/External Funding

The second cluster of factors examined within this study related to actual monies available for faculty to take part in interdisciplinary activities. For the participants in our study there was general agreement that both of these resources served to facilitate IDC activities at their respective institution. Comments in support of this position addressed the fact that in some institutions merit salary decisions and promotion were often closely linked to having secured funding for research. As a result, funding was valued. One comment suggested that external funding was of more value and thus more of a facilitating factor than internal funding sources. While acknowledging the existence of these resources as facilitating one participant commented that
competing priorities for the limited resources and high overhead charges by the institution also served to inhibit collaboration.

Institutional Priorities

College/University Priorities

Participant perception regarding college/university priorities was split between facilitating and inhibiting. Comments in support of this factor as facilitating pointed out that although a campus may be diverse, the college/university governance encourages collaboration. For example, college/university expectations, such as the mandate to work with public schools and the community, were a common priority across programs. Participants who viewed college/university priorities as inhibiting cited that the priorities of increased research and productivity served to devalue IDC efforts by faculty.

National Priorities

In response to the influence of national priorities, the majority of participants felt that these served to facilitate IDC efforts. Comments in support of this position focused on national priorities such as, the mainstreaming of handicapped children into general education and proposals from national reform initiatives such as The Holmes Group. Participants who felt that national priorities inhibited IDC efforts cited that there are mixed messages at the national level. While some sources seek to promote IDC, other sources, such as accrediting agencies which promote categorical certification, serve to
inhibit IDC.

State Priorities

With regard to state priorities, the majority perception was that this factor was facilitating of IDC efforts at their institution. Comments addressed state supported activities such as the call for Intervention Assistance Team (IAT) training at the preservice and inservice level as an example of how state priorities serve to promote interdisciplinary efforts within colleges/universities. Participants who felt that state priorities actually serve to inhibit IDC efforts cited that the state sent mixed messages to the colleges/universities. For example, while the state vision was to move toward more effective collaboration, as exemplified in the establishment of IAT training grants, categorical certification guidelines, also mandated by the state, worked in opposition to move toward more collaboration among the various educational preparation programs.

Program Priorities

In the final factor included within this cluster, program priorities, the general trend was that these priorities served to facilitate IDC activities at their institution. Though not a clear majority opinion, some participants felt that with their institution's adoption of aspects of the Holmes agenda, interdisciplinary collaboration has become a priority for their educational preparation programs. Participants who took exception to this position cited such issues as the competition among programs for students and the increase in categorical
programming as evidence that their program priorities did not include a strong commitment to IDC activities.

Rewards

Merit

This cluster focused on the influence of specific types of institutional rewards on IDC efforts within institutions. The first factor rated by participants was the influence of merit (i.e., criteria as used for salary increases). The general trend was that merit does not affect IDC efforts. The single reason reflected in the comments in support of this position was that salary increases were not determined by merit criteria. On campuses where merit was a factor, collaboration had a very low priority toward the salary decision making process. Participants who stated that collaborative activities were considered for merit also pointed out that these activities must result in scholarly publications.

Reappointment, Promotion, Tenure

Issues related to reappointment, promotion, and tenure (RPT) were also examined as factors which could affect collaboration efforts. There was no clear pattern found in the responses of the participants. Some participants felt that RPT was not a factor since interdisciplinary collaboration was not an explicit criterion of the RPT process. Comments from participants who felt that RPT served to inhibit collaboration, focused on the problems with defining individual effort within collaborative
activities. The issue was made that since RPT committees focus on the individual, often times IDC is seen as too time consuming to be of great potential reward for reappointment, tenure, and/or promotion. One comment from a participant who felt that RPT was a facilitating factor stated that although IDC was an explicit component of RPT at their institution, faculty may choose to be involved only as a way of garnering collegial votes for RPT decisions.

Formal Recognition by College/University

Another type of reward which was examined was that of formal recognition by college/university (i.e., explicit communications for administration to individuals involved in IDC efforts). Generally, participants felt that this factor served to facilitate. However, comments revealed some question as to the focus of this recognition, that is, was it to reward collaboration or just general productivity of the faculty. Comments from participants who felt that formal recognition was an inhibiting factor or not a factor affecting IDC activities suggested that the reason for this situation was that formal recognition did not exist within their institution.

Faculty Issues

Faculty Attitude

The final cluster of factors examined focused on issues specific to individual faculty. In examining the role of faculty attitude it was discovered that a clear majority of the
participants felt that this factor served to facilitate IDC efforts at their institutions. Supporting comments reflected that the faculty within their institution were open to collaboration and IDC efforts were rewarded by the college/university. Participants who took exception to this position, believing that faculty attitude inhibited IDC, stated that collaboration was not highly valued by faculty because it was not a priority of the institution and, in turn, was not rewarded.

Faculty Autonomy

The second issue within this cluster was faculty autonomy (i.e., the role of academic freedom to choose or not choose to become involved in IDC activities). There was a fairly equal split among respondents on this issue with slightly more respondents feeling that autonomy was an inhibiting factor. Comments in support of this position revealed that when faculty were free to choose they tended to stay in familiar territory, especially if collaboration was not valued or rewarded by their institution. Comments in support of faculty autonomy as a facilitating factor were very limited. The major idea cited by participants was that IDC was more likely if faculty were not forced to become involved.
Factors Having the Greatest Potential for Promoting IDC activities

The second objective of this research was to discover which factors (from the list of 15 previously reviewed and rated) participants believe have the greatest potential for promoting interdisciplinary activities at their institution (i.e., IDC efforts among educational preparation programs at their own institution, between institutions, and between their institution and the public schools). Table 2 lists the specific factors as rated by faculty/administration.

Table 2
Factors which have the greatest potential for facilitating IDC efforts

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Administrative Structure</td>
<td>30</td>
</tr>
<tr>
<td>2. Faculty Attitude</td>
<td>29</td>
</tr>
<tr>
<td>3. State Priorities</td>
<td>18</td>
</tr>
<tr>
<td>4. External Funding</td>
<td>16</td>
</tr>
<tr>
<td>5. Institutional/National &amp; Program Priorities</td>
<td>15</td>
</tr>
<tr>
<td>Merit/Formal Recognition</td>
<td></td>
</tr>
</tbody>
</table>

As evident from table 2, there was a clear majority opinion (cited by 30/46 of the participants) that the nature of the administrative structure at an institution (i.e., organization of various disciplines into departments and programs) has the potential to play an important role toward the promotion of collaboration. As previously discussed in the section on organizational issues, administrative structure currently is
viewed as both a facilitating and inhibiting factor by faculty/administrators. At some institutions the physical division of programs into departments or units, usually by discipline and/or program missions, keeps faculty from different disciplines from interacting. It was mentioned, however, that at some institutions this obstacle is overcome through the efforts of the leadership (e.g., department chairs, program coordinators, etc.) to keep their faculty informed.

Faculty attitude was also viewed as an important factor in the promotion of collaborative efforts (cited by 29/46 of the participants). Comments related to current faculty attitude indicated that the majority of faculty are supportive of collaboration, especially when these activities are valued and rewarded by the institution.

The third factor cited as having potential to promote interdisciplinary collaboration was state priorities (cited by 18/46 of the participants). This finding is consistent with the perception that state supported activities currently help to promote IDC efforts within higher education. It is important to note, however, that although participants felt that the state currently supports IDC, and provides preservice and inservice grant monies to promote these activities participants also commented that the state sends mixed messages which work in opposition to IDC efforts.

According to the comments of the participants, one example of this conflict is the establishment of state Intervention
Assistance Team Grants. These grants require faculty from various disciplines (e.g., educational administration, general and special education) to work together to plan curriculum for their educational preparation programs which would address how educational leadership personnel, working with teachers, can more effectively meet the needs of various at-risk populations. While citing this as an example of how the state promotes interdisciplinary collaboration participants also stated that the state supports categorical certification patterns for each of these disciplines. This certification pattern may result in keeping the educational preparation programs separate, despite the efforts of faculty who wish to promote IDC through their grant activities.

The fourth factor identified as having the greatest potential to promote collaboration among the disciplines was external funding (cited by 16/46 of the participants). Participants commented that external funding awards are valued by the institution when considering decisions about faculty merit and reappointment, promotion, and tenure. The identification of this factor as important is consistent with the findings in the previous section on current influences on IDC, when one views funding as an indirect reward leading to merit or RPT for the faculty involved.

Participants listed five additional factors which they believe have potential for promoting collaboration. Institutional, national, and program priorities and merit and
formal recognition were each cited by 15/46 of the participants. These five factors cluster into two groups: priorities and rewards. With respect to institutional priorities, participants stated that although this is an important factor and their institution has as an explicit priority to work with the public schools and community, the institution also have a priority for faculty to increase their research and publication efforts. Participants believe this priority for faculty productivity often serves to undermine the promotion of IDC efforts. National priorities, such as those proposed by The Holmes Group and Regular Education Initiative, were seen as supportive of collaboration activities among the disciplines.

Program priorities, currently viewed as being supportive of interdisciplinary efforts, are also viewed as having the potential to promote future IDC efforts. Although participants cited issues such as categorical certification and competition between programs for student credit hours, as priorities which inhibit collaboration, faculty/administrators also stated that various state and national mandates did filter down to influence program priorities.

Current Interdisciplinary Collaboration Efforts

The final objective of this project was to document the various interdisciplinary activities in which faculty were currently engaged. This documentation focused on IDC efforts among educational preparation programs: within a single
institution, between institutions, and between institutions and the public schools. Based on the information provided by the participants, faculty were involved in a wide variety of activities related to: (1) research and grants, (2) program delivery, (3) program development, (4) governance committees, (5) professional organizations, and (6) other professional activities.

**Research and Grants**

Research and grant activities include projects funded by the college/university, the state, or at the national level. Although there was great diversity in the specifics of the various projects, some of the grants (research and program delivery) require that colleges/universities work with a wide variety of disciplines and/or require partnerships between institutions of higher education and the public schools. Specific research and grant activities cited were: Teacher/Collaboration (University funded); Intervention Assistance Team Grant (State funded); Secondary Learning Disabilities Grant (Federally funded); and various personnel preparation grants (State and Federally funded).

**Program Delivery**

Program delivery activities included both undergraduate and graduate educational preparation programs. Included in this area were activities which promoted partnerships within and among institutions, and between institutions of higher education and the public schools. Examples of these activities included: The
Coalition of Rural and Appalachian Schools; course and field experiences for dual majors in special and general education; use of adjunct professors from public schools to teach on-campus courses; college consortium.

Program Development

Program development activities also reflected efforts to join professionals within institutions, between institutions, and between institutions and the public schools. Efforts included such projects as developing pre-service training modules under an IAT grant (involving personnel from the public schools and college faculty representing diverse disciplines); Academic Policy Committee (interdisciplinary faculty representation); Holmes Group Task Force (involving interdisciplinary personnel from various institutions of higher education).

Governance Committees

Information provided on governance committee activities reflects memberships which represent diverse disciplines; within institutions, across institutions, and from the public schools. Examples of interdisciplinary committees cited by faculty/administrators were: College field advisory board; salary, promotion, tenure committee, Regional Resource Center committee.

Professional Organizations

A wide variety of professional organizations were listed by participants. Without thoroughly examining the membership of each organization it is logical to conclude that the membership of some organizations will be more diverse than others (i.e.,
membership includes professionals from a variety of disciplines, from variety of colleges/universities, and from institutions of higher education and the public schools). Examples of organizations cited by participants as interdisciplinary are: Coalition of Rural and Appalachian Schools; Phi Delta Kappa; American Educational Research Association; Council For Exceptional Children; International Reading Association.

**Other Professional Activities**

Within the category of other professional activities, participants listed activities such as: combining and team-teaching courses from related disciplines; joint authorship on books/articles; state department activities; inservice programs; conference presentations.

**SUMMARY OF FINDINGS**

With respect to the various factors which serve to influence current interdisciplinary collaboration efforts, this study was able to document that there is a great deal of diversity of opinion among faculty and administrators. There was however, general agreement regarding which factors are the most important for the promotion of future IDC efforts.

Within the category of organizational factors, it appears that administrative structure is the most important factor for the promotion of future interdisciplinary collaborative activities. Currently, administrative structure is perceived to be both an inhibiting and a facilitating factor; depending on the
perspective of the individual and/or the nature of the structure at a given institution. Physical housing of the various disciplines, which currently seems to be self-contained (i.e., faculty from related disciplines and programs have offices together) and spread out throughout buildings and across the campus, is viewed as an inhibitor to collaboration. Another organizational issue viewed by some participants as an inhibitor, is the knowledge structures/language of the various disciplines. Participants stated different language and specific jargon used by disciplines as factors which keep people from working together. In addition, participants acknowledge that there is a hierarchy or status associated with the various disciplines which has a negative effect upon interdisciplinary activities.

Participant's views on the role of funding suggests that both external and internal funding are currently viewed as facilitating IDC and they are important to the promotion of future interdisciplinary collaboration efforts. External funding is viewed as slightly more important than internal funding and, as a result, has more potential to promote IDC, because these awards are viewed with greater value within the merit and reappointment, promotion, and tenure process.

The role of institutional priorities is perceived as an important factor for the promotion of future IDC activities and is generally viewed as facilitating current efforts. It was clearly stated, however, that often times the various priorities (e.g., national, college/university, state, and program) actually
work at opposition to one another. Participant comments suggest that institutions send conflicting messages. For example, the college/university may attempt to promote interdisciplinary collaboration through their support of partnerships with the public schools, however, there is also an increased emphasis for faculty to conduct research and produce scholarly efforts. Faculty cite that the increased time required to plan and implement collaborative activities may put them at a disadvantage for merit and/or promotion when compared to the productivity of their peers who do not engage in collaborative activities.

With respect to factors related to rewards, participants stated that merit and formal recognition are important considerations for the promotion of future IDC activities. Perceptions were more mixed among the participants in response to how rewards currently influence interdisciplinary activities at their institutions. Merit was viewed as not a factor at most institutions because they did not have a system of it in place or IDC efforts were not part of the criteria for the awarding of merit. Not including interdisciplinary collaboration as an explicit criterion for reappointment, promotion, tenure decisions was also cited as a reason for it not playing a significant role in the promotion or inhibition of IDC efforts. Another issue addressed by the participants with respect to RPT decisions is the difficulty establishing the value the individual contributes to collaborative activities. For these reasons participants stated that, although inclusion in the RPT process might serve to
promote collaboration, it does not currently serve this function. Participants did acknowledge that formal recognition by their college/university did serve to facilitate interdisciplinary collaboration. A question was raised whether or not the recognition was for collaboration or for the general productivity of the faculty involved.

The final factors addressed within this study were faculty issues of attitude and autonomy. In terms of having the greatest potential toward the promotion of interdisciplinary collaboration, faculty attitude was viewed as second behind administrative structure. Based on current efforts the majority perception was that faculty were supportive of IDC activities. Interestingly, participants also felt that despite this supportive attitude by the faculty they tended to stay away from interdisciplinary collaborative activities. This was especially true if the college/university did not value or reward IDC efforts.

As a result of this project, a wide variety of interdisciplinary collaborative activities currently underway in Ohio's institutions of higher education were documented. These activities included research and grant projects, program delivery, governance committees, memberships in various professional organizations, and other professional activities such as joint authorship on books and articles. These activities resulted in the development of collaborative relationships among educational preparation programs within a
single institution and between institutions. Some of these activities resulted in the development of collaborative partnerships between institutions of higher education and the public schools.

CONCLUDING COMMENTS

The purpose of this study was to further our understanding about the institutional barriers to interdisciplinary collaboration. This study was founded on the assertion that interdisciplinary collaboration is a valuable process in moving toward effective educational reform. Furthermore, it is accepted that it is the responsibility of institutions of higher education personnel to lead the way toward the promotion of interdisciplinary collaboration within schools. This leadership will result when institutions model IDC among their own educational preparation programs, between their programs and other institutions, and between their institution and the public schools.

This study presented new information regarding the complexity of educational environments, with a specific focus on how context is perceived to inhibit or facilitate interdisciplinary collaboration. A variety of factors were documented as having the potential to facilitate or inhibit IDC efforts within Ohio's colleges and universities.
Future direction for continuing this line of inquiry will address the following issues: (1) identification of how specific factors, such as reward systems, affect IDC activities, (2) discovery of how individuals within a single institution agree/disagree on the factors which influence IDC within their institution, and (3) documentation of how specific characteristics of an institution, such as administrative structure, serve to facilitate or inhibit interdisciplinary collaboration. It is also proposed that this study be extended beyond the boundaries of Ohio.
REFERENCES


Section I
Introduction and Identification

A. Introduction to the Purpose of Project

The purpose of this project is to gain an understanding of the factors which appear to inhibit or facilitate interdisciplinary collaborative (IDC) activities within institutions of higher education, between institutions of higher education, and between institutions of higher education and the public schools. As a result of this line of inquiry we hope to identify effective strategies for promoting appropriate IDC activities within Ohio.

As you complete this survey please consider the following definitions as a guide:

- **Interdisciplinary collaboration** is any effort where two or more individuals representing diverse, but possibly related disciplines come together for the purpose of fulfilling mutually agreed upon goals. The key terms are "two or more disciplines" and "mutually agreed upon goals".

- **Educational preparation** refers to programs such as: elementary and secondary, special education, educational administration, school psychology, etc.

B. Identification Information

The purpose of this section is to gather critical identification information. The information you provide in this section will be kept confidential and used solely for the purpose of accurate coding of relevant data.

1. Name

2. Current title or position (please specify Department Chair, Program Coordinator, etc.).

3. Educational area represented by your position (please specify special education, educational administration, etc.).

4. Name of department or unit represented by your position (please specify curriculum and instruction, early childhood/special education, etc.).
Section II
Individual Perceptions on IAT

The purpose of this section is to obtain specific information about your perceptions regarding interdisciplinary collaboration. For each question you are asked to rank how a given feature serves to inhibit or facilitate interdisciplinary collaboration within your educational preparation programs. If you believe that a specific factor neither inhibits nor facilitates interdisciplinary collaboration circle the number which corresponds to "not a factor" (1). Please respond to each of the 16 questions.

Please circle the number which best represents your perception.

Very Facilitating (VF) 5
Somewhat Facilitating (SF) 4
Somewhat Inhibiting (SI) 3
Very Inhibiting (VI) 2
Not a Factor (NF) 1

(1) What affect does the administrative structure of your College (i.e. how the various disciplines are organized into departments and programs) have on interdisciplinary collaboration within your educational preparation programs?

5 4 3 2 1

(2) What affect does the physical housing of the departments and programs have on interdisciplinary collaboration within your educational preparation programs?

5 4 3 2 1

(3) What affect do the priorities of the University, College, and various educational preparation programs regarding IDC have on interdisciplinary collaboration within your educational preparation programs?

5 4 3 2 1

(4) What affect do the knowledge structures and language of the various disciplines (i.e. theories, techniques, and paradigms upon which the various discipline are based) have on interdisciplinary collaboration within your educational preparation programs?

5 4 3 2 1
(5) What affect does the perceived hierarchy or status of various disciplines (i.e. value as perceived by individuals of one discipline toward individuals of other disciplines) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(6) What affect do internal funding sources for IDC activities (i.e. university or college grants) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(7) What affect do external funding sources for IDC activities (i.e. federal or state grants) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(8) What affect do merit criteria (i.e. as used for salary increases) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(9) What affect do reappointment, promotion, and tenure criteria have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(10) What affect does formal recognition of IDC by University, College, Departments, Programs (i.e. explicit communications from administration to individuals involved in IDC efforts) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1

(11) What affect does faculty attitude toward IDC efforts (i.e. perception of value of IDC efforts on the part of the faculty) have on interdisciplinary collaboration within your educational preparation programs? 5 4 3 2 1
What affect does faculty autonomy (i.e. role of academic freedom to choose or not choose to become involved in IDC) have on interdisciplinary collaboration within your educational preparation programs?

What affect do national priorities (i.e. accreditation and reform mandates) have on interdisciplinary collaboration within your educational preparation programs?

What affect do state priorities (i.e. certification and state mandates) have on interdisciplinary collaboration within your educational preparation programs?

What affect do program priorities (i.e. certification and program mandates) have on interdisciplinary collaboration within your educational preparation programs?

Please review the 15 statements you have just ranked. Indicate by listing the corresponding number beside the question, the five (5) factors you believe have the greatest potential for promoting IDC within educational preparation programs. "Potential" implies that under ideal circumstances this factor would significantly contribute to the success of interdisciplinary collaboration. Do not list more than (5).

1.  2.  3.  4.  5.

NOTE: The IUC-TED representative conducting your interview may ask you to explain your responses and/or provide examples of how a given factor serves to inhibit or facilitate IDC. Please review this section prior to your interview.
SECTION III
1987-1988 IDC Efforts

The purpose of this section is to obtain specific information regarding the nature of current IDC efforts at your institution. The following sub-sections are designed to allow you to detail the types of activities which reflect interdisciplinary collaboration:

1) within your various educational preparation programs
2) between educational programs at your institution and other Ohio institutions
3) between your educational preparation programs and the public schools.

We would like you to provide us with specific examples and a brief description of current interdisciplinary activities which are directly associated with the educational preparation programs you represent. Please remember that we have defined interdisciplinary collaboration as:

Any effort where two or more individuals, representing diverse but possibly related disciplines, come together for the purpose of fulfilling mutually agreed upon goals.

As you complete the following sections please list the different activities which you believe represent the spirit of IDC. Please do not duplicate your listings. For example, if you list an Intervention Assistant Team grant under research do not list other IAT related activities under other areas.

A. Interdisciplinary Collaboration within your program, department, or college.

Please provide examples and a brief description of the types of representative activities currently in operation (1987-1988). Please respond from the position you represent. If you are a program coordinator please describe IDC activities which reflect collaboration within your various programs.

1987-1988 Activities

1. Research/Grants

2. Program Delivery
3. Program Development

4. Governance Committees

5. Professional Organizations

6. Other

B. Interdisciplinary Collaboration between your program, department, or college and other Ohio institutions.

Please provide descriptive examples of the types of representative activities currently in operation (1987-1988). Respond to these from the position you represent. If you are a program coordinator please describe IDC activities which reflect collaboration between your institution and at least one other Ohio institution.

1. Research/Grants

2. Program Delivery

3. Program Development

4. Governance Committees
5. Professional Organizations

6. Other

C. Interdisciplinary Collaboration between your program, department, or college and the public schools.

Please provide descriptive examples of the types of representative activities currently in operation (1987-1988). Respond to these from the position you represent. If you are a program coordinator please describe IDC activities which reflect collaboration between your program and the public schools.

1. Research/Grants

2. Program Delivery

3. Program Development

4. Governance Committees

5. Professional Organizations

6. Other
Section IV
Institutional Information

The information in this section is to be completed by the Dean of The College of Education or his/her representative. This information will be used to organize all of the data which is collected within each institution and, as with all identification information, will be kept confidential.

A. Demographics of Institution

Please indicate the number of full-time faculty, by rank, involved in your educational preparation programs at your institution. If your institution does not offer a specific educational program please respond by placing a [0] in the cells corresponding to rank.

<table>
<thead>
<tr>
<th>Educational Program</th>
<th>Full</th>
<th>Assoc.</th>
<th>Asst.</th>
<th>Instr.</th>
<th>Other</th>
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<tbody>
<tr>
<td>Elementary Education</td>
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<td>Secondary Education</td>
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<td>Speech and Audiology</td>
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<tr>
<td>Other</td>
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</table>
B. Institutional Descriptions

The information in this section will allow us to better understand the inner structure of your institution.

1. Please describe (in text or figure format) the administrative structure of your College (i.e. identify how the various educational programs are organized into departments, units, and/or programs). Include in this description the title of the administrator who heads each department, unit, or program.

2. Please describe the physical housing of the educational programs within your college (i.e. indicate if all programs are located within the same building; if programs within one department are located on the same floor of one building; if programs are interspersed throughout a building regardless of departmental organization).

3. Does your College mission statement include interdisciplinary collaboration within educational preparation programs as a priority?
4. Does your College mission statement include interdisciplinary collaboration between your institution and other Ohio institutions as a priority?

5. Does your College mission statement include interdisciplinary collaboration between your educational preparation programs and the public schools as a priority?

6. Does your institution provide internal funding for IDC activities? If so, please describe source of this funding (i.e. University/College grants, seed money etc.).

7. Does the State of Ohio provide external funding for IDC activities? If so, please describe the source of this funding (i.e. special grants, discretionary funds, etc.).

8. Are there other financial incentives (i.e. promotion, awards, etc.) given within your institution for interdisciplinary collaboration? If so, please describe the source of this incentive.

9. Is interdisciplinary collaboration explicitly included as a criterion for Reappointment, Promotion, and Tenure?

10. Is interdisciplinary collaboration implicitly included as a criterion for Reappointment, Promotion, and Tenure?
11. Are there other avenues for formal recognition of IDC? If so, please describe (i.e. acknowledgements from administration, newsletters, college/department colloquia, etc.)

12. Do you believe IDC activities are valued by the majority of your faculty?

13. Do you know if there are any national or state mandates (i.e. accreditation, certification) which directly affect IDC efforts at your institution? If so, please describe.