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A STUDY OF HIGH SCHOOL CAREER RESOURCE CENTERS, INFORMATION
MANAGEMENT AND LAYOUT DESIGN: A REORGANIZATION PLAN
FOR THE TWENTY FIRST CENTURY

A Dissertation Presented

By

MARY VIRGINIA MCCABE

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

September 1994

School of Education

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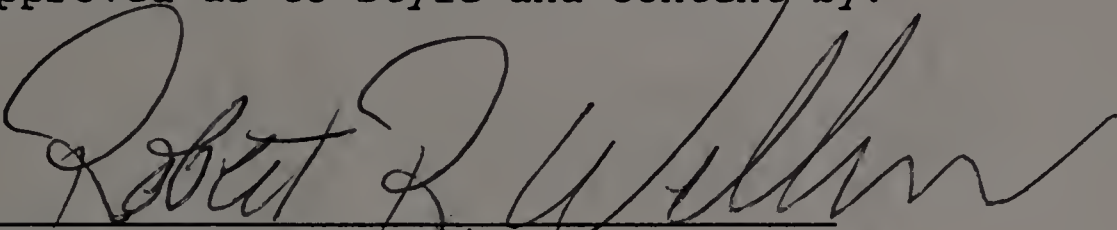
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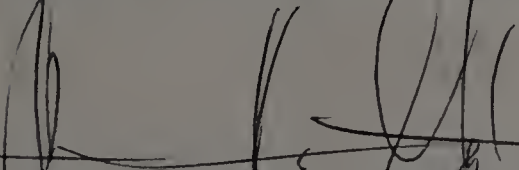
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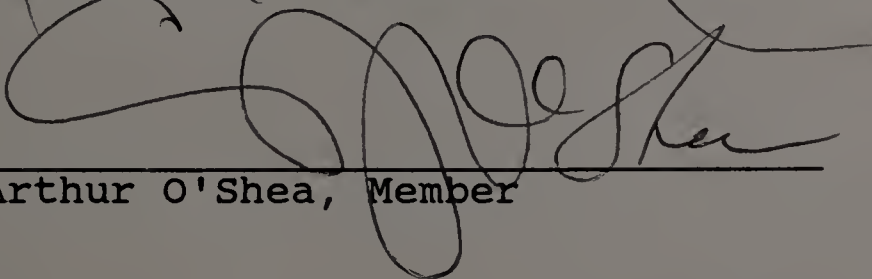
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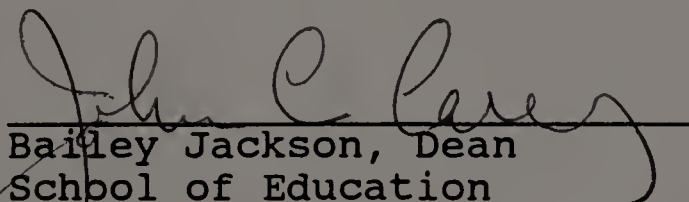
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DEDICATION

To my parents, Mary Sullivan McCabe and Francis "Bud" McCabe, (my first teachers), for their unconditional love and support in all that I attempt, for their belief in me that never wavers, for their daily example of selflessness and courage, and for instilling in me the treasured value of family.

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To my dear friend, Susan Sullivan Rielly, for her friendship and constant understanding; for encouraging and organizing leisure time when I needed it most, for listening and being there. . .always.

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commitment in typing the final manuscript. Your expertise and support is sincerely appreciated.

Finally, there are countless people in my life (not named) who have added richness, growth and love. All of them share in this SPECIAL moment in time.

ABSTRACT

A STUDY OF HIGH SCHOOL CAREER RESOURCE CENTERS, INFORMATION
MANAGEMENT AND LAYOUT DESIGN: A REORGANIZATION PLAN
FOR THE TWENTY FIRST CENTURY

SEPTEMBER 1994

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The secondary site-based Career Resource Center has potential as a major vehicle of specialized communication/dissemination re: postsecondary career and college information. The present study was designed to examine the origin and implementation of Career Centers in order to develop an understanding of the factors to be considered in planning and organizing Career Centers in high schools. Investigation will focus not only on lay-out and design models, but also on "information" organization and dissemination. An historical overview of Career Resource Centers, focus on the theories of informational organization and delivery systems' approaches, and research on design models provided the theoretical basis for the study.

Data for the study was collected from a questionnaire survey distributed to current Career Resource Center practitioners at secondary schools, from library research,

from reports conducted for the school department, from the proceedings of meetings involving community and school officials, and from the personal knowledge and observations of the researcher from her many years of experience with Career Centers.

The results indicate that the Career Centers show a reasonable amount of similarity in their organization and dissemination of information and basic lay out design. It was concluded that the different systems of organization, storage or dissemination of information used by the older centers are also used in similar proportions by the other centers, i.e., most show very little difference in approach. The major difference is in the amount of improvements noted by the older as compared to the younger centers. This is consonant with the age of the centers, the fact that they have had more time in which to change and also, in the vast time span, change would be required. The issue of change and the extent of change is open to interpretation. The question of "future plans" remains open for continued research and creative design.

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C H A P T E R I

INTRODUCTION

Implemented in some school systems in the late 1960's or early 1970's, Massachusetts' career centers were viewed as an "addition". They were either squeezed into small areas or fused with the existing school library. Dependent upon funding for their existence, most sites were furnished with library and classroom "relics". The design of the Center was usually modeled after existing library/classroom stereotypes and function was restricted by space parameters. Individual interpretations occurred because an official and uniform mandate never existed in Massachusetts regarding career centers.

The layout and design of the career center either complicate or enhance both the organized delivery process and the availability of appropriate information and services. Physical environment is either simply a comfortable familiarity with traditional settings or it can be a welcoming creative contemporary space. Career Centers cannot authentically house career information of the future in settings of the 60's. The world has drastically changed and the environment of career centers has not. Personal observations of local high school career centers raise questions of consistency and originality in this area. Very few centers resemble anything that adolescents would categorize as contemporary.

Statement of the Problem

Brown and Brown (1990) comment that "designing an attractive center" (p.23) is one of the fundamental concerns in establishing a site. As we move into the Twenty First Century, it is the contention of the author that we must move beyond "attractive". This "term" is totally contingent upon the vision (or lack thereof) of the Center's director and/or staff. The current structure and design of career centers is outdated and does not create the basic perception that the center is "in touch" with the "times" and, thus, the careers of the future. How then does the center model itself? Creative thinking and design must be developed if career centers are to continue to serve as a conduit for information between the school and the next generation. The center must mirror the future not contradict it.

Career Centers maintain a wide variety of information that can be arranged, delivered, and stored in different ways. Disorganized information, dated references, and closed storage prevent effective dissemination of information and create a barrier to proactive career/college counseling. "If the material housed in the Career Information Center is to be used to the maximum, an active information program must be planned by the staff." (Brown and Brown, p.31). Is there a User-Friendly system of organization and delivery that is at once streamlined and

comprehensible for the high school population the center serves?

Purpose of the Study

The purpose of this study is to investigate (via research, questionnaire survey, and some personal observation) the origination, development and implementation of career centers. Concentration will focus not only on physical lay-out and design models, but also on "information" organization and dissemination to ascertain what factors must be considered in remodeling/reorganizing career centers as we move toward the twenty-first century.

Methodology

A questionnaire survey was used as the research method. In presenting information on the questionnaire survey, Borg and Gall explained that "the mailed questionnaire can be a very valuable research tool in education." (p.423) They suggest seven major items to ensure success:

(1) defining objectives, (2) selecting a sample, (3) writing items, (4) constructing the questionnaire, (5) pretesting, (6) preparing a letter of transmittal, and (7) sending out your questionnaire and follow-ups. (p.423).

The objectives of this researcher were: to gather information from the practitioners at career centers; to inquire about original thinking/planning re: physical layout and design models; to investigate "information"

organization and dissemination; and finally, to analyze the relationships among the variables.

The target population selected for the survey are current practitioners from secondary schools. Prior to mailing the surveys, telephone calls were made to the high schools selected to determine (1) if a career center existed at the school, and (2) the person(s) responsible for the day-to-day operations of the site. In some cases, I spoke with the practitioners directly to elicit support for the forthcoming questionnaire.

Construction of the questionnaire developed after research had been in progress, and after this researcher played the role of participant observer during the site visits at local career centers.

Data was drawn from analysis of documents from these Centers and field notes taken by the participant observer in these centers. Question design used both the closed form (permits only certain responses), and open form (respondents can answer independently without restriction). (Borg and Gall, 428.) Again, this was dependent upon the objectives listed above.

The draft copy of the questionnaire was first read and edited by the dissertation advisors and then presented to the staff at the Psychometric Center at University of Massachusetts, Amherst. A conference time was scheduled; the draft was reviewed and approved. (A copy of the stated

questionnaire is included in Appendix A of this dissertation).

The questionnaire was pretested via guidance counselors and guidance interns familiar with Career Education Programs and techniques (none of whom were respondents to the final questionnaire.)

A letter of transmittal (Appendix B) was drafted explaining the objectives of the study and written in inclusive language to give the strong message that while the author would personally benefit from their time and experience (doctoral degree), the study could likewise prove beneficial to them and to future practitioners. A direct appeal was made to their professional status as Career Educators and Counselors:

I have come to appreciate the comraderie that exists among the professionals whose specialty is Career Education. I am appealing to this spirit in requesting that you take time to complete and return this survey. (McCabe, 1993). (See Appendix B)

Because the questionnaires were mailed at the beginning of June and the response deadline was June 30, an incentive of \$15.00 was added to the letter. The money could be sent directly to the respondent or the charity of choice. Nine questionnaires were mailed. Nine were received by June 30. The tenth questionnaire response, (included in this survey), is from the Center at Cambridge Rindge and Latin High School where this researcher is the current coordinator.

Follow-Up techniques were not necessary because there were no nonrespondents. However, thank you letters were sent along with an enclosed check to the participant or the charity of choice. A few noted that the \$15.00 was not necessary. (One listed this researcher as the charity of choice).

Limitations

This study had a number of limiting factors. First, the size of the local sampling: ten High School career centers as the basis for making generalizations about Massachusetts career centers for secondary programs. Second, participant observation because the author maintains a role as Coordinator of a career center in one of the ten schools studied. Third, the obvious possibility of the apparent difficulty in distinguishing fact from the author's opinion. And finally, the dilemma in maintaining a critical perspective with a long term experiential base, selective biases, and the emotional passion to find innovative data as affecting the reporting and interpretation of the research data.

Definition of Terms

Career Counseling. "It's a lifelong process of learning about self, the world of work and combining these in making the best decisions possible when looking at the future."
(MSCA, 1992, p. 16).

Career Education. ". . .the total effort of public education and the community aimed at helping all individuals to become familiar with the values of a work oriented society, to integrate these values into their personal value systems, and to implement these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual." (Isaacson, 1985, p.34).

Career Center. "The Career Resource Center (CRC) a single centralized place where students, teachers, parents, community members and counselors can secure up-to-date, relevant career and occupational information. . .a vehicle for developing. . .full human potential, regardless of. . .race, sex, age, socio-economic status, or ethnic or cultural background." (Cronin and Brovelli ed., 1979, III-59).

For the purposes of this study, variations on the term Career Center include: Career Resource Center, Career Information Center, and Guidance Information Center. There are basic differentiations adequately explained in chapter II. For the purpose of this research, (except when referring to a specific center by name or published source), the term used in this study is "Career Center".

Career Information. Provision of occupational, educational, and labor market data to youth in order to facilitate the career choice. (Ryan, 1976, p.38).

Dissemination. The process of diffusing information to varied publics. (Ryan, p.38)

Educational Value and Importance

The United States is the only industrialized nation in the world that does not have a specific program to transition youth from school to the world of work. We lack a comprehensive system to assist youth to gain the knowledge, skills, abilities, and information about the world of work in order to make an informed decision concerning lifelong career goals. If we are to remain competitive in world markets, we must begin to compete on a global basis. Three-fourths of youth enter the work force without a college degree. (MASCA February, 1994) Studies indicate that many of these youth move from one low skilled job to another without any specific direction, and fifty percent of adults in their late twenties have not found a steady job. (MASCA, 1994) If our high school graduates are not planning on attending college, we simply hand them their diplomas and wish them luck.

President Clinton in discussing school-to-work programs, has said: "If we are going to prosper in the world to which we are heading, we have to reach out to every one of our young people who wants a job and doesn't have the training to get it. We don't have a person to waste. . when we waste them. . .the rest of us pay. . .in unemployment. . .in welfare. . .in jail costs". (MASCA, 1994).

American society and the world of work as we know it are changing at a rapid pace. Increased technology, specialization, advances in science, and long-term "white collar" job losses of (seemingly secure) career professionals create complexity and confusion with regard to planning and decision making for youth. It was recently reported that

After 31 months of renewed growth in national production, all sorts of people who never thought they would be in on the jobless lines--professional and managerial types, highly skilled technicians and long seniority office workers--are joining laid-off factory hands in looking for jobs and not finding them. (Time. p. 34).

Robert Reich, Secretary of Labor, underscores the severity of the problem estimating that approximately 8.8 million people are "counted as jobless" but in addition, "1.2 million are so discouraged that they have quit looking for work and thus are no longer counted." (Time. p. 34) In addition, many people who sought full time positions have had to settle for part-time positions or are too embarrassed to admit they are employed. So, the staggering reality is that the final unemployment figure could be as high as 16.2 million! (p. 34)

These factors, statistics, and projected futuristic trends will continue to exert stress on all youth, but more dramatically those with basic knowledge, limited opportunity, low self esteem, and cultural differences.

High School Issues

A recent High school study noted that students desire to work is at an all time high; for many, an economic necessity. Students of all income levels, ages, and ethnic backgrounds expressed an eagerness to work, with particular interest in part-time jobs during the school year. Eighty-three percent of the respondents stated that they would like a job. Eighty-five percent of those students interested in finding a job expected to need help. Deficits in communication skills, confidence, general job application technique, and other "work survival" skills were among the most frequently cited obstacles to finding a job among Cambridge's high school teens. Of students who seek work, those who appear to confront the greatest obstacles are students with limited-English speaking abilities. Almost a third of Cambridge Rindge and Latin's linguistic minorities stated that they do not speak English fluently, thus providing a major obstacle to gainful employment. Almost all students for whom English is not a first language expect to need help finding work, as compared to the rest of the total school population. Their number one obstacle to finding a job is not the poor economy, but a self-reported lack of preparation and understanding of how to access the working world.

The harsh reality is a formidable shock: ". . .there is only one safe prediction about the job market of the

future; it will not bear much resemblance to the recent past." (Time. p. 34). Mr. Greenberg of the A.M.A. remarks underscore the reality that we will never get back to normal because "'normal' is based on a whole set of global economic conditions that no longer apply." (p.34) Shertzer and Stone (1976 p. 280) remark: "Guidance programs that fail to provide youth with the basic opportunity to learn more about their environment and themselves shortchange youth. A good informational service helps young people to meet the challenges of today and tomorrow." (p. 280)

The Purdue Opinion Panel reported on a nationwide high school sampling (p.280) that provides thought-provoking data: 1) students in grades ten, eleven and twelve believe that information is helpful and needed; 2) only one in four believed that there was sufficient information and help given; 3) as they progress, choosing an occupation becomes an increasing concern; 4) only 10-12 % report that they are not very concerned about choosing an occupation; 5) the sources they seek out in making vocational decisions are school counselors, parents, close friends, and teachers.

The following year, in a U.S. Air Force Study, (p. 280), a survey that investigated occupational values and career information communication patterns, found the sources cited as being most influential about jobs were school counselor, teacher and mother respectively. In addition,

the "counselor was a particularly important influence for black students." (p. 280)

In a recent survey of High School Youth, special emphasis was placed upon the non-college bound. For these students who will enter the work force directly after high school, almost two-thirds (63 percent) state that they have little or no knowledge about the careers they might pursue. While this may be quite usual for students at such a young age, it can cause difficulties for those students who graduate in June without a sense of where they might go for promising employment. Without guidance, many youth will navigate the job market through trial and error, building a haphazard job history and career experience.

The world of work is changing rapidly. The global economy, technological changes, demographic swings, and an ever-shifting labor market, and lack of preparation and access, all contribute to the need for skills that can operate within this type of environment. Schools, (and in particular), career centers play a crucial role in preparation for school-to-career transition.

School-To-Work Programs

To provide a seamless system for all youth to transition from school to work, the Clinton administration, through the joint efforts of Labor and Education, has proposed the School-To-Work Opportunity Act of 1993 (STWOA). (MASCA Feb, 1994).

The legislation does not propose a new system, but builds upon the work that many states have already begun. It combines school-to-work programs with academic and occupational learning. It incorporates ideas from tech prep, career academies, 2 + 2, and apprenticeship, as well as other similar programs that prepare students for work. The program is not for only disadvantaged, school dropouts, or potential school dropouts, but for all youth. It was created to design a nationwide school-to-work system to provide opportunities for students from all educational, social, and economic backgrounds.

Although the STWOA provides for local flexibility, all programs must contain three core components:

- 1) Work-based learning to provide students with a planned program of job training encompassing a broad range of tasks in occupational areas culminating in the award of a skill certificate. Work experience and mentoring would also be an integral part of this component.

- 2) School-based learning to provide a set program of academic courses. These courses would be offered in high school and in post-secondary institutions and would be directly related to the specific skill standards proposed in the "Goals 2000: Educate America Act." The school-based learning component must also contain career exploration and counseling in order to help students identify, select, and reconsider their interests, goals, and career majors, as

well as periodic evaluations to identify students' academic strengths and weaknesses.

3) Connecting activities to ensure the cooperation and coordination between secondary and post-secondary schools and business. This would include, but not be limited to, matching students with work-based learning opportunities; providing liaison among the employer, school teacher, parent and student; and providing technical assistance and services in designing work-based learning opportunities.

Information Centers offer students the opportunity to learn first-hand what the workplace will require of them. In order to make the school-to-work transition, students need self-assessment skills to identify their abilities, interests, interpersonal skills, and to learn the value of self-esteem. They need to know how to find knowledge of growth industries and occupations, by using the current resources and via educational/career planning. Likewise, they need assistance finding and keeping employment by developing a plan, resume writing, interviewing and understanding employer expectations. Students need to know how to build and develop a successful network; maintaining contacts for a lifetime. They also need to investigate life roles, comprehend financial responsibilities and assess personal habits.

There is a greater demand for career resource materials today than ever before. Employment information itself is

certainly more critical than ever. The creation of totally new careers promises to be a vital, daily concern for millions of Americans both young and old. There is and will continue to be a lifelong need for career and job information. For high school age students the process of figuring out what to do with their lives, and securing a meaningful career goal is one of the most challenging developmental tasks of their entire life. Coupled with the strains and demands of adolescence in tandem with a full academic schedule, part-time jobs, extracurricular activities, and social life, counselors and teachers can no longer be content to just merely refer students to information and resources.

Why A Career Center?

A Career Center is a SPECIAL "resource"--a defined and unique information service in an academic setting as contrasted to a the school library where career information is disbursed throughout the entire collection. Likewise, trained Counselors and/or Librarians serve as professional information providers who are able to locate and retrieve needed information for a student's career or job search, and provide assistance with their use. Often they will know of useful sources unknown to other professional service providers.

Career centers also provide both easy access and convenience for students along with a certain familiarity

re: staff. Because every career plan requires personal response, a school based career center has the added advantage of the professional "network" within the school to provide the broader focus re: academic potential, personal assets/limitations, and peer observations/recommendations. Career centers provide students with concrete resources for career awareness, exploration, development, practical application and follow-up. Among the techniques used are video libraries, mini courses, speakers representing career possibilities related to specific subject matter, mentor programs and job shadowings. Likewise the center assists teachers in the development of practical career education techniques that can be applied to their curriculum.

Computerized Guidance

Technology has permeated every facet of the school. With declining personnel and resources, computerized guidance is an integral part of most career centers. Student response has been enthusiastic to say the least! A dynamic tool, computerized guidance programs prove to be one of the best advertisements. Students feel actively involved in researching information about college and vocational choices. The computer system (student-oriented) is easy for them to use. Students from all grade levels and varying academic abilities are able to participate in operating the terminal after receiving an individual and/or group orientation session. Many students take pride in developing

their individual expertise. In operation, the constant element of learning is very real as someone discovers how to use a new command, makes a new association, or simply completes the process from start to finish without assistance on the terminal.

Question of Values

Most career centers (if any) do not enjoy the luxury of large staff. Meeting the unique needs of students, teachers, and community "drop-ins"--a daily reality--becomes a Herculean task. Ultimately, the Career Counselor is faced with the conflict of providing maximum service with total efficiency. Program cut-backs, group sessions, and volunteer assistance are all alternatives in the career education process, but surely not solutions.

The Career Counselor can easily fall into the trap of information dispenser: drop in a question--get an answer in return. One must realistically face the role conflict involved: information-giver vs. information-interpreter. Spending hours doing research cuts into counseling time, effective student service, and personal contact.

Computerized guidance on the other hand frees the counselor by providing more time with its instantaneous and accurate information printout that can be used with the student immediately. It allows the counselor to work with many more students on a personal level and holds student

interest because they can actively participate in the decision-making process--in their own life choices.

The Role of the Counselor

The role of the school counselor is crucial in assisting youth to prepare for a career regardless of whether the career requires a college degree. Due to pressures from society, community, parents and school personnel, counselors tend to spend more time on helping youth transition to college as opposed to the world of work. A study conducted by the College Entrance Board indicated that counselors spend half of their time counseling college bound students and the other half working with kids in trouble. (MASCA, Feb. 1994) Willard Wirtz, former Secretary of Labor, in his book The Boundless Resource, noted that there is ". . .a consensus among educational observers that guidance and counseling are the weakest links in the school-to-work transition." (MASCA, Feb. 1994) It is important that school counselors possess an in-depth knowledge of the requirements needed to enter college. However, it is just as important, perhaps even more so, to possess the necessary skills to assist those students who, after graduation from high school, are planning on immediately entering the work force, or a post-secondary institution to gain further training to enter into a career.

The role of the counselor in the school-to-work program is that of the catalyst. The counselor has the training and

skills to bring students, educators, parents and business together.

The Computer

The computer was never designed to replace the personal counseling component. It is not meant to be the final or only decision-maker but to provide information to help students make BETTER decisions. The computerized program should not be used as an isolated experience, but rather in conjunction with a developing career exploration program.

One of the prime requisites of career education is the development of the student's decision-making abilities. Most computerized guidance programs effectively support this concept. The student becomes the responsible agent interacting with the system, choosing the information desired, experimenting with the results of choices and yes, revising the whole process and judging the results.

Benefits

Computerized guidance:

1. Frees the career counselor to work as a counselor vs. a librarian.
2. Promotes student enthusiasm and interest for career education based on their own needs and interests.
3. Provides easy access to accurate information.
4. Helps students understand the multi-faceted levels of decision-making.

5. Broadens narrow interests and limited geographical knowledge in non-threatening manner.
6. Makes the student conscious of his/her responsibility to be an active agent in his/her life.

Student Reaction

Computerized guidance actively engages the students and in many cases instills a sense of control re: the uncharted future.

"I used to 'play around' with the computer until I really learned how to use the system. I came to appreciate what the computer could actually do for me and my friends." Sophomore, (McCabe, 1978 p.5)

"I can run the program myself and enjoy teaching others how to use it. Helping others has opened up new opportunities, schools and occupations that I never knew existed." Senior, (McCabe, p.5)

"The other day I brought home the information I got on Flight Attendants. My Mother and I discussed my career choice for the first time. And guess what? She was really interested!" Freshman, (McCabe, p.5)

"Instead of wasting time looking in a 'hundred' books, the computer gives me information in a matter of seconds." Senior (McCabe, p.5)

C H A P T E R I I

REVIEW OF THE LITERATURE

What follows is by no means meant to be an exhaustive review of the literature surrounding the topic. Rather, it is focused on those concerns which appear to be most predominant and which directly relate to this researcher's efforts to identify the critical elements necessary for the most efficient operational use of career centers via innovative layout design and delivery system approaches.

Two areas of literature are reviewed in this chapter. The first section provides an historical overview of the literature on Career Centers to both understand the development and of these sites and to define their current status: lay out and design. The second section provides focus on the theories of informational organization and delivery systems approaches. This data will be analyzed: 1) to identify the critical elements needed for change regarding center design and informational organization and, (2), to determine the appropriateness for the secondary setting.

Career Center

A career center acknowledges the life-long need and desire of people to learn more about the real world of work and to understand and make decisions about their own lives in light of that world. Research indicates that the concept

of what a career center is differs a great deal between one school and another. Basically there are three types that primarily differ because of differences in the scope of the role the career centers play in the total school guidance program.

The Information Center Concept

Usually a career center is established in order to bring all career and educational materials together in one place to facilitate accessibility for student use. The underlying assumption is that by making information easily accessible in a central location, the career center will aid students in making education and occupational plans and decisions. Exposure to information will hopefully motivate students to further their personal planning and provide them with a more realistic and factual foundation for decision-making. The career center thus represents a concerted effort to get current and relevant career and educational information to students throughout the school day on a walk-in basis. This type of first-stage career center usually concentrates on storing, displaying and encouraging student use of educational and vocational information in all of its many forms: printed materials, multimedia, etc. Materials on the following topics are usually included: careers and jobs, career decisions, public and private vocational schools, occupational programs, work experience programs, apprenticeships, the armed services, job interviews and

applications, two and four year colleges and universities, scholarships, etc. The primary emphasis at this level is providing all sorts of guidance related information for student use.

The Career Counseling Center Concept

The principal addition that advances a career center to the second stage is the provision for personnel to help students meaningfully use the center's informational resources by helping them relate information to their personal educational and career planning. The provision for such personal counseling and assistance recognizes the fact that simply providing relevant and accurate information to most students will not automatically insure that they will be able to make the most appropriate career and educational choices and decisions. This fact has been repeatedly expressed in the professional literature dealing with the role of information in the counseling process and has been supported by research findings obtained from student users (Isaacson, 1985). This second stage center concentrates on helping each student not only to obtain the information he/she he wants but also to relate that information to his/her choices of high school subjects and his/her career and educational plans. The all-important factor added here then is career center personnel with the specific responsibility of personally assisting and counseling students using the career center and its resources. Here a

human resource is added to all the other information resources. This is a critical step and makes possible a much wider range of career center services. This additional assistance helps make it possible for wide-scale referral to the center for guided career exploration. The provision of personnel with a responsibility to staff and to operate the career center makes possible organized programs and activities which make the career center a really significant and effective instrument in career guidance and education.

Comprehensive and Integrated Guidance Center

The principal factor that categorizes this level is its involvement in the total school guidance program and its establishment as the central resource and activity location for all guidance oriented programs. The career center becomes not only an information and counseling center for students, but also becomes the coordinating center for all school guidance activities. Here the regular school counselors as well as the career counselor use the space as a resource and activity room. Formalized programs and activities are run through the career center to daily relate it to the entire guidance program. In this stage the career center becomes the indispensable coordinating hub for interrelating all guidance programs and activities. Here career center staff and the school counselors work together and the center truly becomes a guidance center.

Design and Organization

In the late 1970's, research thinking on Career Center Models and space noted:

The characteristics of the space selected will affect the program and its delivery. Optimally there will be at least enough space for the staff and three to four students to work individually and without crowding. Space that accommodate groups of students (up to class-size) will be advantageous but it is not essential. (Cronin and Brovelli, III-60).

Throughout the literature three models are consistently presented:

- 1) Career center near the Guidance office,
- 2) Career center as adjunct to the library and,
- 3) Career center utilizing school classroom.

Contemporary research of (Hubbard and Hawke, 1987; Brown and Brown, 1990; and the Alberta Career Centre) raises more sophisticated issues concerning location, effective use of space, lighting, acoustics, furnishings, room shape and finally, the center's physical layout. Ideally, the center should be located primarily for visibility and user accessibility. Literature from the Alberta Career Development and Employment Centre promotes this concept and further notes that "making the best use of the space available becomes the major issue." (13). The "best use" (the authors suggest) is determined by the needs of the primary users (identified by a needs survey).

Those needs, translated into physical space needs (i.e. research or reading areas, discussion or workshop/seminar rooms, audio-visual viewing rooms, and storage rooms), will help(one) determine what you must do with the space. . .(13)

Brown and Brown are among the first authors to categorize the center as an "environment" (17) that needs to be "deinstitutionalized" (17), (vs. the more traditional space concept that weaves throughout the literature of the 70's and 80's). This environment is to be made "as pleasant and as comfortable as space, money and physical surroundings permit." (17)

Critical components of contemporary research include consideration of the following:

- 1) The center services offered all affect the space needed and optimum design characteristics.
- 2) It should be in the mainstream of user traffic.
- 3) It should be incorporated with or adjacent to the counselor's offices.
- 4) It should be distanced from high noise levels.
- 5) It should accommodate both small and large groups
- 6) It should be handicapped accessible.
- 7) It should have desirable staff accommodations.
- 8) It should concern itself with a design plan for multipurpose use.

(Model layout designs will be included in the Appendix of this paper and discussed at length as to appropriateness for the secondary population, the quality of innovation, and the

enhancement (or lack thereof) as it directly relates to efficient organizational use in Chapter 5.)

The Need for Information

The age of information and technology has arrived. Never before have people involved in career planning, both practitioners and their clients, had a greater need for relevant, accurate and up-to-date career-related information. And never before has the amount of available information, presented in different formats, been greater. The challenge is to get the needed information to those who need it, in a format that is most useful to them.

Canadian research explains that effective career centers that use a multimedia approach to the dissemination of information, by making books, magazines, video and audio tapes, computers, etc., available to the clients, can play a major role in assisting many people with their career-related information needs. (Alberta, p.3)

The success of a Career Resource Center depends largely on two things: 1) the nature of the information provided, and 2) the degree to which this information is interesting and appealing to the user." (Time Share, 1978 brochure).

Most adolescents entering high school, begin with an appropriate base for career exploration and preliminary decision making. Others begin with minimal awareness of the world of work; some with distorted perceptions. Isaacson maintains that students "must have accurate, current, usable information about themselves and about occupations if they

are to make wise decisions" (p. 126). Career information coupled with quality career counseling assist high school students in setting goals and in making planned decisions about their future. Without information, students often postpone their decision making; many making plans based on a limited career perceptions or merely convenience--what is immediately available. Lack of information is the cause of many problems and unfulfilled lives. Isaacson proved insightful when he commented:

Sometimes the client doesn't know, and sometimes the client doesn't know that he or she doesn't know. There is a difference between not knowing and not knowing where to find answers, and even, occasionally, not knowing how to use answers. (p. 126).

Despite the fact that career decision-making is one of the most significant steps in a person's life, (as a high school student about to enter the job market) many young people drift into their future without having made a clear and reasoned choice. For most of them, the decision-making process lacks its most vital ingredient--information. As the job market changes its shape and as personal forces press individuals to seek new and better opportunities, the need for information becomes crucial.

The Career Counselor is the information specialist in this area and via the occupational information stored in the Center should be able to assist the student in acquiring and processing the information. "The materials and techniques

selected are chosen because they appear to facilitate best that effort." (Isaacson p. 128)

Since the world has grown more complex there is not only an increasing demand for supplementary sources of information but also, an urgency has been created to keep abreast of the information that it is in a state of constant flux.

Career centers hold a variety of information that can be arranged and stored in a number of different ways. Disorganized information or closed storage many times works against effective dissemination of information and poses a barrier to optimum career/college counseling.

Organizing the Information

In order to provide for the effective dissemination of career information, career resource coordinators must give serious consideration to the organization of materials. There is need to choose classification schemes appropriate for their collections and also, decisions on how materials will be stored. In addition, there is need to provide for the cataloguing and processing of materials and also the shelving and maintenance of the collection.

Filing Systems

Accessibility and ease of use are the critical factors. Isaacson pointed out advantages of the alphabetical system: simplicity of use, minimal educational background and

expansion possibilities. (35) Cronin and Brovelli suggested a filing system that

Fits the clientele and the CRC program. Questions of accessibility, adaption to local input, ease of maintenance, and appearance must be considered. Quite frequently, locally developed and modified systems work best. (111-68)

Current literature on filing systems did provide consensus: whatever the choice, a comprehensive system must be used to

- 1) classify and file any and all material via logical arrangement,
- 2) be easy to use, and
- 3) flexible.

Logical Arrangement

Materials should be arranged on the shelves so that all items on a particular topic are shelved together with materials on related subjects grouped nearby. (This encourages students/users to browse and explore the collection.)

Easy to Use

The system should be as easy to use as possible. A simple system saves staff time in instructing users. With the problem of "understaffing", uncomplicated systems are a plus and make the student a more independent consumer.

Flexibility

The system must be flexible enough for expansion. As new occupations emerge and new subjects are added to the center, the system must be adaptable.

Research demonstrates that there are many systems in existence. Some centers have custom-made classification systems while others implement systems recognized and established elsewhere. Many centers employ a combination of schemes. For example, one system might be used for occupational information and another for employer literature.

When the center exists within a school that already has a library, it is suggested by the experts that it is worthwhile to consider choosing a classification which is similar or identical to the one used by the library.

(Egelston, p. 91)

Brown and Brown maintain that in their research, the following systems meet this criteria: "the alphabetical, the D.O.T., and the GOE filing systems." (35)

Alphabetical

Briefly discussed above, Isaacson presented the advantages of this system, but limitations exist: "occupations for the same occupational family will not be filed together" (35) and confusion (on the part of both the filer and the researcher) of what to do with occupations that have different titles. Cross referencing would be a

decided necessity. For example, materials might be first classified so that all items on a given occupation are grouped together on a shelf by code number and then arranged alphabetically by author and title. Another possibility is to use a geographical and alphabetical scheme together.

D.O.T. System

Considered to be the most comprehensive occupational classification system, the D.O.T. (Dictionary of Occupational Titles), uses a nine-digit code number for classification purposes. In wide use, this system's negative (in terms of the high school age population), lies in its complexity.

GOE System

Published by the U.S. Employment Service, with 12 interest areas, its chief purpose was to assist job hunters in identifying with jobs that correspond to their interests and abilities. (This system has been designed into an occupational filing system by Chronicle Press). Research indicates that it is a very useful system for young workers and "should be considered an alternative to the alphabetical and D.O.T. systems described above." (44)

Research provided another simple classification system for consideration: Color Coding.

Color Coding

For small centers that do not expect major expansion in the future, Canadian experts suggest "colour-coded

classification systems" (Hubbard and Hawke, and Alberta Career Development and Employment).

Colors stand for different subject areas. For example: Careers (red). This section would contain descriptive information on a wide range of occupational areas.

Employment (green). This section would contain resources useful primarily for active job searching; business directories; employers of graduates by discipline including detailed information on those companies which recruit; labor market and salary surveys; state and federal government information.

Education (yellow). This section contains educational directories and calendars for community colleges, college/university undergraduate, graduate and professional programs in the United States and abroad (if possible), as well as information on part-time correspondence programs, short courses and professional development seminars.

Work/Study/Travel (white). It was suggested that resources of additional assistance should be shelved separately from the main collection. Examples might include: video tapes, employment surveys, summer resources, career planning and job search techniques.

The apparent advantage of using a simple color coding system (via colored adhesive dots) is that it is very easy for students to use on their own because users are able to see at a glance the colors that represent specific subjects.

This coding also makes it quite appropriate for understaffed centers. Color coding is often used in conjunction with other systems.

Research supports the fact that all classification systems have advantages and disadvantages. Each system then needs to be analyzed according to the requirements of the setting: who the users of the collection will be, and how broad a range of subject areas it will include; who will be staffing the center and how much time they will have for classifying, processing and filing; and finally, how likely the collection is to expand.

The literature does not recommend one system for all centers. Many create custom-designed systems, or make major adaptations to existing systems. Emphasis however is again placed upon logical classification, ease of use and flexibility. In addition, provision made for people to learn how to use the chosen system. Hubbard and Hawke (p. 57) make an important issue of how important it is that users are able to discover on their own how materials are organized. The goal of any career center should be to assist the user to be as independent or self-directed in this search as possible.

It has been said that guidance exists to help students help themselves. The same could be said about the information service; namely, that it exists to help students help themselves. Information assists the user to gain insight in to and power over a situation. (Bedal and Huffman, p. 21) (quoted in Hubbard and Hawke)

Suggestions of how to accommodate this feat follow:

1) A Floor Plan: A floor plan can be quite effective in showing people where subjects are located in the center. It may even be worthwhile (they suggest) to have a scale model professionally produced and located in a prominent place near the main entrance.

2) Signs: Signs can also help students locate material. They should be colorful and attractive with clear wording and should capture the attention of people as they walk to the center. Signs can be overhanging or attached to shelving or walls.

3) Posted Classification System: The authors see it as a good idea to display the classification system in a central place so that users can easily see how the materials are organized. (Hubbard and Hawke p. 53-57)

In addition, further research produced a novel and creative user aid worth exploring: "pathfinders". As explained, pathfinders are printed guides that define a pathway through the center's resources on a particular topic. For example, a pathfinder for resume writing identifies various portions of the "library" (center) that have information relevant to the writing of resumes. The pathfinder may also include a selected bibliography of particularly useful resources.

An additional section could describe other resources outside the main and, in this way, serve a referral

function. It is noted that this aid should be brief (ideally, no longer than one page, both sides.) (Alberta, p. 45) An added advantage is that it could also be color-coded to fit into a color-coded classification system.

Dissemination of Information

The acquisition and classification of informational materials, is only one aspect of the information service. The major responsibility is "how" to encourage students to use the materials; how to deliver the information so that the process can be proactive and students learn to ask the "right" questions.

Several methods were generated during the course of this research.

1) Using information with individuals. Students often have vague, erroneous, and limited perceptions of the work world, educational opportunities, and personal-social relationships. They need to be encouraged to use information about occupations, and educational opportunities for the purpose of self exploration. Goldman referred to the counselor's role in this process as that of an ". . . interpreter of probabilities." (p. 44)

Hoppock (1967) points out that it is not the purpose of counseling to recruit for particular occupations, or to direct students away from certain occupations, or to select students for college. Information is used "to help the student to clarify the goal that he wants to reach and to

move in the direction in which he wants to go. . ." (p. 148)

2) Groups--group approaches which incorporate the use of informational materials are usually organized in three ways:

- a) a semester or year course
- b) curriculum or homeroom
- c) special conferences or events

The advantages are in terms of economy: time, personnel and facilities. Discussion with peers also makes the information more meaningful. Some students may also feel more comfortable with their peers.

3) Guidance Information Courses--School courses vary in purposes, grade placement, duration, and whether or not school credit is given. Typically courses are designed to focus upon either a) a general coverage of topics such as self-study, vocations, educational opportunities, career planning, school orientation, etc., b) a special area such as the study of occupations. Surveys by Hoppock and his associates (p. 148) show that ninth and twelfth grades are most favored for occupation courses. Ninth graders can use the information as a basis for course selection, potential drop-outs may be reached; for the twelfth graders, they are more aware of the immediacy of leaving school.

4) School and College Conferences--called "College Day/Night", "College Fair", "Putting the Pieces Together", etc., more schools are finding it advantageous to conduct

such programs (especially at night) so that parents will attend.

5) Computer Based Programs--The advent of technology came at a time when the school's informational systems were being challenged as irrelevant, out-of-date and unattractive to students. Many computerized guidance systems are marketed: GIS, ACES, C-LECT and Peterson's (to name but a few of the most popular.) Some are strictly a research tool, others have question resolution capability, and others, are a student-computer interactive where both query; and the student formulates decisions without assistance. (Most current use is focused on the basis stage: storage and retrieval.)

The systems noted above represent the future of informational services. Presumably technological advances will enable counselors not only to do better but to do more efficiently that which they strive for in the informational service. Constant experimentation and testing of ideas in this area, leading to more knowledgeable and ingenious programs, extend great hope for the future of meaningful development and refinement of the information service within the total constellation of guidance services.

Few individuals, counselors included, argue that information is unnecessary. Some suggest however, that too many school programs (centers) expend more time collecting and disseminating information to students and too little

time helping students resolve implications of information for themselves. To do one and neglect the other is to be unrealistic and to disregard important elements in career planning and decision-making. The actual argument should seem to center on balancing the amount, methodology, and timing of information usage. Emphasis and planning are required to maximize the efficient and meaningful input if the individual is to progress, in an informed fashion, through the complex series of steps involved in career development.

C H A P T E R I I I

METHODOLOGY

Introduction

The secondary site-based career center has potential as a major vehicle of specialized communication/dissemination re: postsecondary career and college information. The present study was designed to examine the origin and implementation of career centers in order to develop an understanding of the factors to be considered in planning and organizing career centers in high schools. The literature on an historical overview of career centers, focus on the theories of informational organization and delivery systems' approaches, and finally research on past and current lay out designs provided the theoretical basis for the study.

This chapter describes the questionnaire method used by the author, acting a researcher, surveyor, and participant observer to examine site-based career centers.

Sources of Data

Data on which to base this study were collected through a variety of means: library research, questionnaire survey, and participant observer/personal knowledge. Each of these sources is described further below:

Research

Data were gathered via computerized library research to include: journals, books, texts, newspapers, and independent research; also included were specialized early monographs and reports (Massachusetts Occupational and Career Education Library housed at Minuteman Regional and Vocational School, Lexington, MA); reports conducted for the school department and from the proceedings of meetings involving community and school officials.

Questionnaire Survey

Information was gathered from a questionnaire survey mailed (June, 1993) to the Director/Coordinator of the Career Center in different Massachusetts cities or towns: Arlington, Boston, Brookline, Cambridge, Chelsea, Concord-Carlisle, Medford, Lexington, Newton, and Watertown.

Participant Observer/Personal Knowledge

The personal knowledge of the researcher, supported by twenty three years experience with the Cambridge School system (both public and parochial), serves as a significant data base for this study; in addition, (and more specifically), eighteen years serving as Coordinator of the Career Resource Center). During those years, this researcher has been intimately involved in all aspects of the School Department's initiation, development and operation of the career center, has been a leading participant and resource for meetings held from the

Center's inception (1976) to the present, and has been the official spokesperson for the School Department/City (re: career education) with other school districts, the business alliance, community agencies, the press, and the public for all of those years. During that period, the researcher has been privy to many discussions, formal and informal, about career education, and has had access to documents. As a keen observer of human nature, the researcher's personal connection with the School system, its students, staff, administration and involvement in professional Guidance organizations has provided invaluable data for this study.

Sample

The questionnaire study was designed for a specific professional group: current practitioners from secondary schools who supervise or direct the operations of the career center. The sampling frame, (not random), was chosen for reasons of access, the knowledge that the centers had the desired information, and most importantly, that these sites would willingly participate in the study.

Prior to mailing the surveys, it was necessary to make telephone calls to the high schools selected to determine (1) if a career center existed at the school, and (2) the person(s) responsible for the day-to-day operations of the site.

Descriptions of Sample

Following are descriptions of the samples chosen for this study.

Arlington

Arlington is primarily a suburban residential community and is located 7 miles northwest of Boston. Recent trends indicate a transition toward a more urban rather than suburban community. There is a broad range of socio-economic educational levels in the community. Arlington High School is a comprehensive secondary level educational system. The purpose of the high school is to provide a variety of curricula suited to the wide range of learning and primary experiences needed to meet the demand of the post-secondary world in contemporary society.

The Arlington career center was established in 1975 under a State grant. For the past 12 years, it has been part of the Guidance Department. The center is one room and attached to the Guidance suite. Information is disseminated (primarily) via English classes. Support staff include a full time director, three counselors, an intern who assists part-time, and a corps of 10-15 Parent Volunteers. The volunteers have a daily schedule which includes work assignments. Chronicle Guidance's C-LECT is the chosen technology.

Boston

Boston is an old City, and its history and character have been forged by generations of immigrants: Irish, Italian, European Jews, Chinese, southern Blacks, Hispanics, and Asians. Boston is one of the most culturally diverse cities in the nation. It is also a city where world class museums and literary societies exist side-by-side with rap music, poverty, and homelessness. Boston houses 16 vigorous neighborhoods and they are as varied as the people. This is the precise challenge of the educational system: meeting the needs of a varied and demanding student body. There are 16 public high schools for grades 9-12. Two major coups for the high schools are the "Boston Compact" (jobs, placement services and financial aid for good grades and attendance); and "the Boston Plan for Excellence in the Public Schools" (a \$15 million endowment fund for college scholarships.)

The Boston school system's career center, (not to be confused with the Career Information Center: Boston Public Library at Copley Square), is seventeen years in existence. The original Director is still in charge. Information is supplied to students, parents, and the general public. Three full time people staff the main center: Senior Advisor for Guidance, a Staff Assistant and a Clerk typist. GIS is the computerized Guidance System.

Brookline

Brookline is a dynamic and progressive community that has developed into an urban/suburban community. It is an international town with a heterogeneous citizenry whose cultures and religious affiliations trace their origins to approximately 57 foreign lands. Recognized as a leader in public education, residents are committed to the success of its public schools.

Brookline High School (comprehensive) has an extraordinarily diverse population of students representing over sixty nations, most ethnic groups and at least twenty five different language groups. Forty-four percent of the student body come from families whose first language is not English. Thirty percent of the student body is minority.

Brookline estimates the age of its career center: nine years. There are a large classroom and separate resource site. Staffing is quite limited with only one full time person: Director of the center. (She described herself, "I do everything"!) The computerized technology of choice: ACT--Discover Program. Information is disseminated via counselor referral and outreach methods.

Cambridge

Cambridge is a densely populated, ethnically and culturally diverse city of about 90,000. Among the racial groups, there have been significant changes that significantly affect the schools. The white population

decreased by 8.1%, blacks increased by 24.1%, Asians by 123.7%, and Hispanics by 43%. The High School (comprehensive) is the only public high school in the city. Currently, young people from over 64 nations attend the high school. Diversity in race, culture, academic ability, and socioeconomic class is a prized quality. The high school offers participation in one of the most comprehensive school systems in the country.

The career center originated eighteen years ago. Prior to, that, a College Resource Room was staffed by the Cambridge Volunteers. Beginning in a classroom space with two attached offices, the center moved 10 years ago (when Cambridge Latin and Rindge Tech merged and became Cambridge Rindge and Latin) into a modern two-level site housing both college and career materials. The center is staffed by one full time counselor and a secretary plus part-time Interns from Lesley College and Boston University. Information is disseminated to students, teachers, and the general public; a cooperative partnership exists between the local business industry alliances, and community and job agencies. Parochial school students also have access to services. GIS has been the long-standing technology of choice.

Chelsea

Chelsea is a small city north of Boston, population 28,000 people. The school community is ethnically diverse comprised of 65% Hispanic, 10% White, 20% Asian, and 5%

African-American students. Currently the Chelsea Public School System is managed by Boston University. Professors from the university are working with the high school teachers to develop an academic program.

Approximately two years ago, a separate career center was instituted. Prior to that, information was disseminated via three counselors. The center's initiation was made possible because of the support and interest of the new principal (the former Assistant Principal of Policy and Students at Cambridge Rindge and Latin High School). Staffing the Center are one full time counselor (he worked for many years to get a career center established but it was never a priority for other administrations), and two job specialists. Information is dispersed via "drop-ins", class workshops, and counselors. GIS is the computerized Guidance system currently in use.

Concord-Carlisle

Located about twenty miles west of Boston, the towns of Concord and Carlisle are communities that embody many historical, cultural, and educational assets. More than 21,000 residents are served by an outstanding educational program which annually sends approximately 90% of its graduates on to higher education.

Concord-Carlisle High School is a four year comprehensive high school with an enrollment of 860 students.

The career center, sixteen + years in existence, (separate from the guidance suite) is located off a busy main corridor. At the time of the survey, school renovations were in progress and a new career center site was planned for September 1993. In the new area, the center will not be physically separated from Guidance. Counselor offices will "surround" the center. The center is staffed by three part-time workers: Career Coordinator, Information Specialist, and Work Experience Assistant, and three "occasional" volunteers. Information is dispersed individually, via small and large groups, and through thematic packets. C-ELECT is the computerized Guidance System used.

Medford

Medford is a diverse, urban, historical community with suburban charm. It is located 4 miles northwest of Boston with a population of approximately 56,000. The community strongly supports its schools and continually evaluates them. The high school is a public comprehensive four year school with an enrollment of approximately 1500 students: multiethnic and multicultural.

Established six years ago, the career center was located "in" and became "part of" the school library. Open access is available but (since this survey was administered), the area is staffed by Interns only on a part-time basis. Information is distributed via drop-ins or

counselor referral; some teachers use a curricula approach. ACES is the current technology.

Lexington

Lexington is a residential suburb of Boston. The population of 29, 697 is primarily composed of business and professional families. Lexington High is a comprehensive four year program; approximately 92% attend two or four year colleges.

When this study was initiated, Lexington had a working career center (nine years old) staffed by a Guidance Counselor 3/4 time, one part-time secretary and two volunteers. Since then, with declining enrollment (2400 to 1400), and consequent major budget cuts, the center remains in "name only". Counselors take care of college counseling but a counselor reported that "next to nothing is happening with career education." ACES had been the chosen computerized Guidance Program. (This tool is no longer available.)

Newton

Newton is both a small city, population 83,000, and a suburb of Boston. Its population is heterogeneous with a large proportion of academic, business and professional families as well as blue collar workers. It is considered to have a model educational system, and attracts families from all over the world. (There are two public high schools in the city: Newton North and Newton South. For the

purpose of this study, Newton North was the only Newton school surveyed. With a student population of 1750 and rich cultural diversity, it more closely resembled the other high school population samples). Students come from other states and over 55 foreign countries. Their diversity is further enhanced by the METCO program (which buses black students from Boston) and the EDCO Program, (a regional program for hearing-impaired students.)

The career center, (one of the earliest surveyed-- established in 1966), has separate facilities (a suite of four rooms: a multi-purpose room, a small conference room, college catalog and storage rooms) and is staffed on a full time basis by the Guidance Counselor-in-Charge, two part-time aides, a full time secretary and a staff of eight volunteers. Information is dispersed via orientation sessions, classroom meetings, and individually. The computerized system in use is Peterson's for 2 and 4 year colleges.

Watertown

Watertown, located approximately 6 miles from Boston, is a community of approximately 35,000 residents. It is noted for its rich cultural heritage, diversity of language, and strong community spirit. Watertown residents are supportive of the local educational programs and services. Watertown High School is a comprehensive secondary public school of approximately 700 students grades 9 - 12. College

preparatory programs ready students for demanding post high school pursuits. Career and vocational training programs prepare students to enter the "world of work" with highly competitive, marketable skills.

The career center (the oldest surveyed at +/- thirty years, is a separate room with an office. Three full time Counselors share the responsibility of running the center.

At the time of this survey, the Vocational Counselor Position had been eliminated because of budget cuts. The delivery of information is via class and small group discussions. Technology-wise, C-LECT and College Board EXPLORE are used.

Rationale for the Questionnaire Survey Method

A questionnaire survey was used as the research method. Construction of the questionnaire developed after research had been in progress, and after this researcher played the role of participant observer during the site visits at local career centers.

Data was drawn from analysis of documents from these center and field notes taken by the participant observer at these centers. Question design used both the closed form (permits only certain responses), and open form (respondents can answer independently without restriction). (Borg and Gall, p.428).

The qualitative research model was developed primarily in the social sciences and has been applied to educational problems only in recent years. (Borg & Gall, p. 379).

There has been a growing acceptance of the questionnaire survey and other qualitative methods among researchers, particularly in education Bogdan & Taylor, 1975; Lutz & Iannoccone, 1969; Rist, 1978; Wilson, 1977. (Borg and Gall, p. 399)

Qualitative researchers view themselves as a primary instrument for collecting data. They rely heavily on their own interpretations in understanding the meaning of the data. Findings are often reported in the form of verbal descriptions rather than in the form of quantitative summaries of the type yielded by statistical analysis. (Borg & Gall p. 23)

A questionnaire survey approach was chosen for the career center inquiry in order that the essential characteristics of the processes involved in researching centers and particularly in providing information for career center practitioners, may be more fully understood.

Research Method

In order to analyze the questionnaire survey results, the Content Analysis Method was used. As a method of educational research, its aim is producing descriptive information. Documented extensively prior to 1950, the content analysis method was also supported by notable

experts in the field: Thorndike 1932, Berelson 1950, Lodge 1951, Zahorik 1968, Montague 1976, Newman and DiSalvo 1980, and Borg and Gall 1989. (Borg and Gall, p. 18)

"Content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication." (Borg and Gall, p.18) Content analysis is often used with traditional sources textbooks, newspapers, etc., and also used in conjunction with observational studies. (Borg and Gall, p. 520.)

Most content analysis in education have been aimed at answering questions directly relating to the material analyzed. (p.520.) "These analyses have generally been concerned with fairly simple classifications or tabulations of specific information." (p. 520) This information can then directly applied e.g., to revision of a program, area of thought, etc. Experts support the idea that content analysis can be a valuable tool for obtaining certain types of information useful in identifying or solving educational problems. (p.520)

Procedure

1) All ten responses were combined in one questionnaire form and placed in order of age for easy reference: (Appendix C).

2) Responses were then summarized in narrative form with some simple descriptive statistics: mean, median, absolute and relative frequencies: (Appendix C)

3) Responses to questions were then classified and coded with a number of narrated responses or a ranking: (Questions 2.3.2. Most influential sources and 2.4.2. Meeting needs of particular students) and then the results were graphed as histograms: Appendix C 2.3.2 and Appendix D 2.4.2.

4) Responses were then compared of older (15+) to younger centers (less than 15 years) (See Appendix E).

5) Responses to all questions where respondents could expand on their answer in narrative form (especially questions 2.5 and 2.6), were grouped and classified.

6) The general impression given by the above in terms of the function(s) of a career center was considered. Some of the questions that the questionnaires and resulting analysis seemed to raise were likewise considered.

C H A P T E R I V
FINDINGS AND ANALYSIS

This study was designed to examine the origin and implementation of career centers in order to develop an understanding of the factors to be considered in planning and organizing career centers in high schools. Investigation focused not only on layout and design models, but also on "information" organization and dissemination. The literature on an historical overview of career centers focused on the theories of informational organization and delivery systems' approaches. This, and research on past and current layout designs provided the theoretical basis for the study.

Data for the study was collected from a questionnaire survey distributed to current career center practitioners at secondary schools, from library research, from reports conducted for the school department, from the proceedings of meetings involving community and school officials, and from the personal knowledge and observations of the researcher from her many years of experience with career centers.

Background and Organization

The average age of Massachusetts career centers surveyed in this study was 15.2 years (median 16.5) with a range from 2 to 30 years. Only four of the centers had been in their current location throughout their existence. The

average length of time in their current premises is 10.8 years (median 10.5) with a range from 2 to 20 years.

Of the ten directors only four had been with the center since its inception. The average length of tenure for the remaining directors is 9 years (median 6, range 2 to 25). Three of the four centers with their original director also have the same premises and two of the four are the newest Centers (2 and 6 years old).

The highest number of "great" improvements were registered in the area of College information. The highest number of "no improvements" were noted in the area of staffing. Significant improvement was noted for career information and computerization. Of interest is the fact that it was not only the newest center that recorded no improvement in computerization, but also, one that is 9 years old.

Physical

The average amount of career center space is approximately 890 sq. ft. with amounts ranging from 100 sq. ft. to 1600 sq. ft. Most centers have one room; one has a "loft" area on a mezzanine floor; two have separate offices; and one has a "suite" of four rooms. One Center had recently moved to new premises in the Guidance Department.

Half the centers have materials arranged by content (e.g. a college section, a career section, etc.). Only one describes its layout as arranged by format e.g. videos,

catalogs). The remaining centers indicated that both format and content were used as bases for storage i.e., by format within content e.g., college videos were kept together at the end of the college section shelf.

No one commented on any additional interesting forms of storage beyond those suggested in the questionnaire. A few indicated that more display stands would be good.

Staff

Three centers had full time staff; the center with the least staff had one full time. Difficult to compare are those centers with volunteers: one center has only one part-time staff member and two volunteers. In between were one full time, two part-time with eight volunteers and finally, one intern with ten to fifteen volunteers. Of interest is that the only respondents who said that the staffing level was adequate is the latter one mentioned and another with only one full time staff member without any volunteers!

Time

Most centers indicate that their time is apportioned by a combination of drop-in and referral with only two noting a program approach: ("job placement and readiness sessions throughout the day" and "thematic programs") and a curriculum approach ("guidance visits in English classes" and "some teachers will integrate a lesson plan into their curriculum".)

Information Organization/Dissemination

As means of organizing their career materials the following divisions occur: two use a combination of title and cluster; two use a combination of cluster and DOT #; two report using only title and two report using only cluster. Additional comments raise G.O.E. (Guide for Occupational Exploration) and "by occupation related to school subject" as other means of organizing career materials.

College Information

College material in all centers is organized alphabetically; in all cases by college name, five also within geographical area, and two of those also by state. Three comment that they have Massachusetts colleges in a separate section, two also separate two and four year colleges. A few have separate sections for black colleges, military and specialized/vocational training schools.

Job Information

Just over half the centers house job information but only two are responsible for job placement. One of those two and one other are the only ones who deliver Job Preparation Workshops.

Other Information

One center also provides information on a community service program, a work experience program and also has a summer opportunity file.

Technology

All centers have a computerized guidance system, the most popular being C-LECT (3), GIS (3), and ACES (2). Two others mentioned were Peterson's College Search and ACT Discover; College Board EXPLORE was also mentioned in this context. Only three centers have other computers or programs: IBM clones were mentioned and used for labels, lists and word processing.

Career Tests

There proved to be more variety in the types of career tests and interest inventories used than guidance systems: Harrington O'Shea Interest Inventory was mentioned by eight centers. Strong Campbell, N.C.S. Career Assessment Inventory and Kuder were each mentioned twice. Another five tests were mentioned once each. (Listed under 2.1.3. in Appendix C.)

Retention and Delivery

Most centers keep college information on file "until replaced by update" which means anything from one to five years. Career information is kept for similar lengths of time, but "as long as current" being the major determinant. The main advantage of storing outdated information is to store spare copies for giveaways, or in case the current one is stolen or not replaced.

The most frequently noted method of disseminating information is wall charts/directories in the center,

followed by presentations and bulletin boards. Only three have student "packages" (containing forms, directions for completing them and college fair preparation/information). Only four have a specific form for computer requests and two for the other searches.

Which resources are used most often by students to make decisions? Some of the respondents answered for all media but a few ranked guides in the top four places and then an index or videos as the fifth most influential source.

College decisions: see Graph One, Appendix F,

Career decisions: see Graph Two, Appendix F.

Meeting Needs

The responses on grade level and center use were divided: four centers noted that both juniors and seniors use the center most; two noted juniors and four felt that seniors did. The particular college/career needs of each group are represented in the table/graphs in Appendix D. Ninth graders are serviced largely through orientation sessions and counseling. Tenth grade students are involved in small group discussions, workshops, and seminars. Career tests and extra information begin to be used more as well. In grade eleven counseling and planning sessions feature heavily and PSAT and inventory tests rank along with information and materials. Noticeable in the twelfth grade is the general use of a variety of methods (except for orientation.) Specifically, with regard to bilingual

students, they are generally not separate from other classes; although some support from an ESL teaching program (one-on-one) was noted. With regard to minority students, again the results indicated that these students were not serviced separately but some support from METCO etc., was reported.

In investigating information regarding teacher/counselor education programs only two centers reported that they organize/lead continuing training/updating in career education for teachers and counselors.

User-Friendly

All except one center considers themselves user-friendly but only four feel that students could find all the information they needed if a staff member was not present.

While only half the centers said they had reconsidered their physical layout as it relates to ease of student use, only one actually noted that they were reactive. Examples of changes made are do largely with rearrangement of materials. Two comments cover concepts: thematic packets for students and having a classroom suite.

Six centers considered themselves to be proactive (one "becoming" so!), three noted that they were both pro and reactive, depending upon the context (reacting to student's requests, proactive in organizing a career focus program,

school and college nights, speakers and field trips, etc.) Only one noted that they were reactive.

Budget

Most funding comes from the school budget (sometimes the center is part of the guidance department and has no budget as such.) Where budget is mentioned, it is usually some small amount (from \$1,300.00 to \$5,000.00) for publications. Salaries would appear to be paid by the guidance department. Only one center noted a much larger budget (\$22,000.00) for the GIS License for 17 high school (satellites).

The Future

Dreams for the future ranged from a simple desire to keep the center open; to the basics: more staff, greater budget, increase in space, furniture/materials update, increasing the educational technology aspect of the center; to the ideal: an innovative development of a 21st century "look" and "feel". (See Table in Appendix G).

The ultimate design and contemporary restoration would be a community/school liaison that would involve current students, graduates, and community representatives.

Analysis and Interpretation

Although comments made are based on an analysis of these ten questionnaires and must be understood as descriptive of these ten centers; the fact remains that a number of conclusions and recommendations can be made about

these career centers and their innovations, similarities and differences. The information gleaned and the recommendations presented would be easily applicable to career centers in general.

The Function of Career Centers

A fundamental question to ask in any analysis is: what is the function of the entity in question? The basic function of a high school career center is the storage and dissemination of career and college information for the students. This is usually done as an adjunct to the guidance department, but can sometimes be the guidance function for smaller schools, providing counseling as well as information. Again, depending on the size and nature of the school population, the center can branch into job placement activities, and may be responsible for a range of as yet unimagined functions.

The question of function was not put directly to the respondents of this questionnaire so information gained is not definitive on the range of functions/responsibilities expected of each of these centers, but one can ascertain that all (except one, which was discovered later to be a central administrative office for seventeen high schools' resource centers) was responsible for information storage and dissemination to a greater or lesser degree. One center showed more of a focus on information storage. This same center however, also had a form of job placement operation.

Only two centers recorded having a job placement focus, providing job preparation workshops, and only two are responsible for job placement.

Apart from a few minor differences in emphasis or focus, the ten centers appear to have the same main functions. The next question to be asked is: how do they achieve this function?

Achievement of Function: Method

The questionnaires provided some information on how these ten centers accomplished their main functions. The main impression gained when considering the responses regarding storage and dissemination of information is the relative uniformity of method, approach and format. Some variation is seen but most centers did not provide much additional information beyond that offered in the question. A more detailed analysis of potential differences between older and younger centers is outlined under section D on page 69.

Resources: An interesting by-line is introduced by responses to questions on adequacy of resources. Staffing was generally noted as not adequate, except, it seems, in centers where staffing levels were fairly "low" i.e., one center with only one individual or another with three part-time staff members said staffing was adequate. Space was usually felt to be adequate, except by two centers who

interestingly enough were the only two not to provide actual measurements.

This raises at least two issues: first, what are the functions of these centers, what are their responsibilities and are they being asked to do too much? Second, assuming an appropriate allocation of resources for responsibilities apportioned, there is the subjective issue of attitude and the part it plays in the functioning of an organization. One cannot argue with the statement "we have neither the staff nor the time to do it right", if one does not know what it is they are expected to do. However, there is a different feel to the statement of one director: "I do everything" (one full-time staff member--affirmative to "Is this adequate?") who considers the center to be proactive and lists a series of innovative outreach activities undertaken.

Innovations: A significant amount of improvement was noted in all areas (career and college information, layout, dissemination of information, computerization) with the only exception being staffing. Respondents also provided some detail about improvements/innovations in questions where "other" information was requested and in reply to questions on proactive techniques and new ideas.

The following is a summary of responses given:

Outreach: Workshops and seminars in classrooms; mailing post secondary planning booklets to homes, visiting

home rooms, presenting at Parents' Night and in senior assemblies were some of the activities of this nature.

On-site outreach: Financial Aid, School and College Nights; Job Placement and Readiness Skills sessions; speakers, Open House for parents.

New/newly packaged information: Booklets/packages with samples, directions, preparation information; give-aways; laser disks; thematic booklets ("The 13th Year), College essay writing video; thematic packages; community service, summer opportunity and work experience information; college Open House and scholarship files.

Advertising: Over the PA system, bulletin boards, targeted notes to teachers for appropriate students; posters, weekly guidance bulletin.

Physical reorganization: Rearranging catalogs, career information organized by occupation related to school subject; relocating counselors to be together in guidance area.

Involvement: On taskforces and committees; parent involvement.

Reflecting on these responses, one must ask the question "what can be considered to be an innovation?" Do the above changes actually rank as innovations or are they simply incremental adaptations to an old system? While the above may be innovative in comparison to the centers of twenty five years ago, are there any truly innovative ideas

for information storage and dissemination? The centers did not provide much more detail on "storage" furniture beyond the four suggested by the questionnaire (Appendix A, 1.2.2. --shelving, filing cabinets, display stands and counters.) There were not many additional suggestions provided where detail was requested. It was usually elaboration on responses that were posed by the questionnaires. Does this show a lack of imagination, or simply reflect the lack of time available to directors and/or appropriate others to do additional tasks such as answer questions?

This aspect (lack of innovation) becomes more definite when considering the response to the question on the FUTURE. Visions for the future conformed to this pattern of incremental improvement rather than innovative vision.

Achievement of Function: Success

Meeting the Needs: A major question that any service provider asks is "Am I meeting the needs of my clientele?" While one needs to ask this question of the clientele to get a complete answer, the question can be rephrased and asked of the service provider--who uses the service most? (Appendix A, Qu. 2.4.1.).

The impression given in response to this question is summarized by one of the respondents: "9th grade kids are not usually interested in life beyond high school". All centers indicated that the 11th and 12th grades used the centers most. This raises the question: is this due to the

students' approach to college and career issues at this stage in their lives, or is it that the centers' approach is not appropriate? Should the centers be making more of an effort to interest the 9th and 10th graders in their future? Should they be "forcing" the younger students to deal with college and career questions immediately? Centers are under pressure from college deadlines between September and February, maybe at the expense of career development. This is illustrated by the number of centers who could name the top five influential sources for college decisions but only one or two influential sources for career decisions.

These questions regarding the focus of a center again returns us to the issue of a center's function, this time with an added dimension--what is the scope of a center's function. Should it reach out equally to all grades/levels of the population? Or should it focus on those who are about to make the transition to the next stage of life? Should its clientele also include teachers/counselors/parents? Should a center be providing teacher/counselor education programs (only two centers do)? Should centers have job information and placement responsibilities?

Method: The centers reported a range of activities used to meet the needs of the various grades. Most methods were used across the board and show a reasonable degree of similarity in the types of method used for each grade level. (See Appendix C, 2.4.2.). An example is the use of

orientation for 9th graders but not for any other grade. Of interest is the use of most methods by most centers for juniors and seniors. This uniformity suggests that centers have developed an approach to information dissemination that works for them and probably for the students at each level. Whether this is true and whether it will stand the test of time are issues that need further investigation

Achievement of Function Over Time

Age differences: A detailed comparison of those centers established more than 15 years ago (pre 1978--six of them) with those developed after that date shows very little difference in information storage and dissemination techniques/methods.

On the whole the different forms of organization, storage or dissemination of information used by the older centers are also used in similar proportions by the other centers. Some minor differences showed in:

1. The use of time: among the older centers more use only drop-in and referral.
2. Storage systems: one of the older ones is the only one that uses G.O.E. (Guide for Occupational Exploration) for storage of career materials; the older ones file catalogs by state as well as by college name.
3. Technology used: none of the younger centers have computer based systems other than the computerized guidance system; half of the six older ones do.

4. Most influential sources (college decisions): three of the four younger centers cite guides as the most influential source; only one of the six older ones put guides first. Three of the six older centers put computers first while only two of the younger ones even mention them. Four of the six older ones say videos are the least used, the younger centers place it second or third. (Career decisions: there is no pattern to differences in ranking of influential sources here.)

5. Teacher/Counselor Education: Only two of the older centers do teacher/counselor education (none of the other centers do).

6. User friendly? Only one of the younger centers considers that their center is not user friendly, everyone else considers that they are. Most of the younger centers consider that students could find information in the center by themselves, compared with only one of the older centers.

7. The Future: It was two of the older centers who had a vision for the future beyond "more space, more staff, more budget. . ."

A noticeable difference is in the amount of change noted by the older as compared to the younger centers. Much more significant change was noted by the older centers than the younger ones in all areas except staffing which both groups largely noted as having no or very little change. (A number of centers noted that the small amount of change in

staffing was a reduction in numbers.) This difference in amount of change noted is probably not surprising given that the older centers have had up to twenty eight more years to think about, and act on, making changes than the younger centers have.

Achievement of Function in the Future

Given this background information, the similarity of method and approach, the apparent understaffing, the reduction in resources, the relative lack of vision, further questions come to mind:

Will centers have an expanded function in the future? Should they? Are centers ready for the future? Much change has occurred in career centers over the thirty plus years of their existence. To a certain extent, they have kept up with the times: computerization, college focus, information explosion. But are they flexible enough to adapt to the 21st century? While these questionnaires do not provide much of a basis on which to rest a definitive statement that career centers are not ready to face the future, one can speculate based on the analysis given above. There is not much difference between the centers' methods, approaches, and formats. This may be because this is the best way of achieving the function of a career center, or it may be that there has been no innovative thinking applied to the organization and dissemination of information, or to the possibilities of expansion of function for a center.

Only two of the older centers had a vision for the future beyond "more space, more staff, more budget". However, these visions were two quite distinct concepts. One embraced the "technology aspects" that are so much a part of today's world. The other looked towards the 21st century, considering the presentation of information (multi media, including the development of CD-ROM career/college information and interactive career films), while at the same time also searching for a contemporary adolescent atmosphere --a look and feel that goes beyond the current (classic classroom/library) image and mirrored instead, the new century.

Does this apparent lack of "vision" suggest (as the staffing levels and related comments do) that center directors are bogged down in day-to-day details and have no time to look beyond "maintaining the program and staying open"? Does the response "we have neither the staff nor the time to do it right" sum up the center director's approach in general?

Summary

The analysis of these questionnaires raises more questions than it answers. This report considers the centers' responses from the fundamental perspective of the function of resource centers: what is it?, how is it achieved?, is it achieved? and how will it be achieved in the future?

Function

The basic function of a high school career center is the storage and dissemination of career and college information to high school students.

Method

Data was provided by ten questionnaires. The results of the survey show a reasonable amount of similarity in their organization and dissemination of information.

Innovations: Details of outreach, "advertising", new forms of information presentation, physical reorganizations and involvement on taskforces and committees were given in response to a request for "other" information and in reply to questions on proactive moves. Whether these are innovations or incremental improvements is a question that needs to be considered.

Success

Meeting Needs: The focus of career centers appears to be on the eleventh and twelfth graders. Whether their needs are actually met and whether this focus is appropriate are questions that can only be answered by the students themselves. A variety of methods are used by the ten centers to meet the students' needs but there is a considerable amount of overlap, with very little in the way of unusual activities being mentioned in responses to this questionnaire.

Age Differences: On the whole the different forms of organization, storage or dissemination of information used by the older centers are also used in similar proportions by the other centers i.e., they show very little difference in approach. The major difference is in the amount of improvements noted by the older as compared to the younger centers. This is consonant with the age of the centers i.e., they have had more time in which to change and over which change would be required.

Future: Dreams for the future were largely limited to maintaining or improving the status quo i.e., keeping the center open or increasing staff and/or budget. Two centers had "visions" for the future beyond this which raises the questions: what will the center of the future look like? what will it do?, and how will it do it? (These questions will be addressed in Chapter 5.)

The questionnaires provide a range of information on how the centers currently function and this appears to be fairly similar across the board. The issue of change and the extent of change is open to interpretation: what is an innovation, have there been great strides in the presentation of information? The question of the future remains open for discovery and creativity.

C H A P T E R V

INNOVATIONS

The national movement: School to Work Transition is a summons to educators (career counselors in particular) to rethink and revamp the status quo. The workforce of the 1990's is already markedly different from the work world of our parents. The multicultural/multiethnic population of the high schools, the plethora of career information, the changing workforce, and the lack of information/planning on the part of students demands a uncommon response. . .NOW!

The pregnant question remains: where can we go from here? Certainly the plan must go beyond and be more imaginative than "more space, more staff, more budget".

Function

Current--the primary function of the career center is the storage and dissemination of information with some centers also providing a counseling component.

Innovation--function expansion to include involvement in partnerships between education and business. Students would hold actual internships in the local community and as participators they would be experience first hand instead of being passive observers via reference books and/or videos. A case in point: Biogen (Cambridge, Massachusetts) has been hiring interns for the past three years to assist in various manufacturing areas. Many of the interns are placed into

full-time permanent positions within Biogen at the end of their internships. They believe that internships are a great way for a student to "sample" different roles in a manufacturing environment without having to make an initial long term commitment. This helps ensure that the student will make an informed decision when he/she considers permanent opportunities. The internships offer an environment for interns to be cross-trained in several areas while gaining valuable experience and knowledge that can be applied in their future endeavors. Thought should be given to flexible scheduling for students (both inside and outside the parameters of the "normal" school day) and credits awarded. Internships would be a most positive approach and challenge for good students and an innovative idea for bright "unmotivated" students. The significant difference could easily be a "future".

Function expansion might also include program presentations at the local mall. Not only would one have access to a ready-made audience, but also, the move is attractive to business and a method of collaboration. Advertising costs and other expenses might be paid by the business people. The advantage to them is obvious: more family business. Seminars could be held on Early Financial Planning, Job Readiness Workshops, or mini consultations re: college and career planning.

Finally, expansion could likewise include a mobile unit (used for many years by libraries) to reach students/families in neighborhoods where career center access is limited or awareness minimal to non-existent. The mobile unit could house a computerized guidance program and colorful information sheets/packets (thematic and simple) that are written in the major languages of the community represented. Career information tours could be arranged on weekends for parents and students and transportation provided (if necessary).

Method

Current: Limited staff is not only a problem for centers: staffing (everywhere) has been "downsized". How then does one expand career center function on "skeleton" size staff?

Innovation: Basic but true, the counselor cannot do it all. The reality is no one really expects them to any more. With a developmental plan in place, they can and must ask for help. They must promote essential partnerships with teachers, parents, business and the community. Some sources of "free" assistance include: trained peer counselors, guidance interns from local colleges, administrators from higher education, business people both active and retired. (Much thought should be given to the personality characteristics of these people i.e., how they would relate to young people and also, that they would represent the

multicultural/multiethnic spectrum of the work force). Trained peer counselors can do many of the basic function tasks that consume so much time: word processing (to include a daily bulletin and monthly news letter), bulletin boards, xeroxing/faxing, material dissemination, computer assistance, and set-up for evening programs. Guidance interns (well interviewed and trained) will be a decided asset because their "freshness" to the system, motivation, energy and willingness to try out new ideas is exactly what is needed in a busy center with multiple programs happening, large numbers of students/faculty serviced, and the need for integral resource development "outside" the school walls. Administrators and faculty members of local colleges could also function either as mentors or offer mini seminars e.g., college essay writing or business/technical writing skills development on a regular seminar basis (not the usual "one shot" deal). They could also assist teachers in curriculum development and take students to their colleges on a "behind the scenes" informational tour (early 9th grade). Business people could offer simulation experiences at the school or create internship experiences or provide "space" and interviewers for interview skill development. Generally, retired business people are an untapped source of wealth. In addition to a number of successful years in the business world, they also have the time and the much needed network bank from which to draw other resources. They could prove

invaluable in curriculum development and co-teach a careers course and/or subject area class from the business perspective. Likewise, they could mentor a program for young entrepreneurs or set-up an outstanding speakers' bureau that could be filmed by the students, broadcast by cable and videos made for the career center library. These people must be made "comfortable" in the school setting. The career counselor needs to assist re: student/teacher perception of these people as part of the career center "team" vs. that of "invited guest".

When function increases, the role of the career center counselor must be redefined from personal counselor, information specialist and manager of resources to that of an agent for change: a catalyst, an initiator of possibilities, a coordinator of programs and a supervisor of partnerships. The concept is freeing (from "doing it all" to shared responsibility) because there is brainpower, innovation, and growth. There is also a loss of "control" and for many who have been counselors for a number of years this is a frightening concept. As a suggestion, a course or in-service program in supervision would lessen the stress and assist in heightening awareness re: the broader picture. It would also provide new/creative supervisory techniques, styles of management, and accountability measures.

Space

Current: Career centers show remarkable similarity in basic layout and design. Why is that? One factor that might contribute to this "mirror image" is the fact that those who initiate a new center usually visit other existing centers to get a sense of what it looks like and how it functions. The "mental picture" is then replicated at the new site.

Usually, the initial layout plan does not change. The assumption is that the counselor is too busy with the "day-to-day" routine and/or the status quo is easier and less stressful to manage. Recent literature (although more is being written about "atmosphere" and appeal) still include these basic layout designs that have not moved very far away from those printed in earlier studies. The only exception is that current literature highlights areas for technology. An example of one of the most contemporary sites is included in Appendix H). It is at this site that the author wants to make innovative but significant changes in the next two years.

Innovation: The design or remodeling plan should include a broad representation of students (the primary users), students from the architectural drawing class at the high school and local architects. The project would be credit based for the students and the architects would function as the expert and teacher. Creative thinking/

planning, contacts with present/former graduates, and focused and persistent networking within both the local and business community could make this venture work financially independent of the school system. In many cases work would be the donation instead of money.

Ideas for this project might include the following:

- large open, flexible space (air conditioned) and flooded with sunlight, (glass and natural wood with living plants/flowers);
- informal student area (comfortable furniture and "treehouse" reading space);
- technology area (including computers, phone and fax);
- neon lighting to identify specific areas: college and career materials, etc., and neon lighting in the corridors leading to the center as "directionals";
- lighting with controlled dimmer switch
- wall bookcase with a moveable staircase to reach materials and provide access to second floor (within the center);
- small stage area under the wall bookcase (multipurpose: speakers, panel discussions, interview skits, etc.).
- second floor mezzanine to include private counseling space, a resource space for teachers/counselors; and another area: a replica of a business interview room (used for mock interviews);

- huge aquarium (set-in a wall);
- video area with a wrap around screen and high tech projector including surround sound for background music, movie/video tracks and also, headsets for quiet listening; video cameras for recording career college speakers and informational program development to be shown on cable; cameras for students to record job experiences, informational interviews, the city at work, etc.,
- a skylight (that could also function as an observatory and weather station);
- an attached greenhouse;
- wall space filled with huge color (3-D-) photos of people at work (futuristic careers: biotech, environment, etc.),
- and a separate entrance/exit to the outside to maximize community use of the resource center--access 7 A.M. to 9 P.M. with modified weekend schedule. Counselors would work on a flex schedule--community rep staffing is also a possibility.

(The aquarium, video area, observatory/weather station and greenhouse would all be maintained by students and career development opportunities would expand from this focal point including student/teacher curriculum development.

A working layout design of career center and community collaboration, (area architects), may be viewed in Appendix H. This working plan will be presented to the students in Fall 1994. (In hindsight, the ideal would have been a joint collaboration from the outset).

Outreach: Current: Getting the right answers is a matter of asking the right questions. Counselors cannot wait for students to come to the center. The current system is one of both "drop-in" and referral.

Innovation: A career team approach: dividing the school in sections via grade or area is a start. The team could also have an "in-house road show"--a structured, developmental program, where the team locates in the student lounge or cafeteria and delivers the product. Visibility is the crux of the matter. Electronic billboards throughout the school can also make students aware and keep them posted re: deadlines. In addition, the mobile unit previously discussed.

Information: Materials in the center should be easily identified and logically located. For the high school audience, color coding accompanied by with a posted chart and brochure that explain the process, is both easy and effective. (See Appendix B).

Prepared thematic fact sheets and/or packets should be simple, focused and current. New sheets/packages should be designed because of both student questions/interests and the

professional judgment of the developer. These thematic packets save time and reinforce what has been stated e.g., assemblies, etc. Curriculum needs to be developed on site re: career and work issues including services and activities provided by the community agencies.

Storage of materials should be open with neon lights identifying the appropriate areas. Nothing should seem to be closed access. Storage systems in most career centers include old file cabinets, cardboard cartons, and recycled bookcases. Brightly painted bookcases, plexiglass shelves, or contemporary wire units might be a good alternative. If files are to be used, they should have list of contents, be color coded and "welcoming".

Technology: All centers need to have at least one computerized guidance program that provides college, career, military and graduate school information. More than one would be the ideal because each system has a special forte and presentation mode, and students have different learning styles. It is incumbent upon the center counselor to keep informed of the latest technology to make sure that they license the best program for their students. Computers should also be a resource for other programs: interest testing, resume writing, application program (e.g., College Link), essay writing and financial aid sources. Phones and fax machines are now a necessity and should be available for student use. Likewise, the center has to broaden its scope

and connect out-of-center with the technology of the business world. On-line job opportunities might be such a start. Training, equipment and access is possible. It is all a matter of exploration and networking.

Career Counselor: the ultimate variable in this entire process is the counselor responsible for the center. First, one must be aware that the status quo needs to change, and experience the "growing pains" necessary to keep the center alive and the programs energized and contemporary. Wanting change and going after it are two different things. Attitude, energy, imagination and political savvy are the necessary ingredients to make innovation happen. It is the role of guidance to be agents of change despite what job descriptions (of many years say). Professionals keep current and adapt to change. Certainly innovation requires one to rethink and reexamine the "comfortable". The times are on the side of guidance. Parents and the business community will no longer stand on the side lines looking in. They want to be included and are an integral piece of the puzzle. They have everything at stake and so do we--the current generation.

C H A P T E R VI

SUMMARY AND RECOMMENDATIONS

The purpose of this study was to investigate (via research, questionnaire survey, and some personal observation), the origination, development and implementation of career centers. Concentration focused not only on physical layout and design models, but also on "information" organization and dissemination to ascertain what factors must be considered in remodeling/reorganizing career centers as we move into the twenty first century.

Data for the study was collected from a questionnaire survey distributed to current career center practitioners at Massachusetts secondary schools. The objectives of this researcher in gathering information were to inquire about original thinking/planning re: layout and design models and to investigate the organization and dissemination of information.

The results indicate that career centers show a reasonable amount of similarity in their organization/dissemination of information and basic lay out design. It was concluded that the different systems of organization, storage or dissemination of older centers are also used in similar proportions by the other centers, i.e., they show very little difference in approach. The major difference is in the amount of improvements noted by the older as compared to the younger centers. This is

consonant with the age of the centers, the fact that they have had more time to change and also, in the vast time span, change would be required. The issue of change and the extent of change is open to interpretation. The questions of "future plans" remains open for creative planning and additional research.

Limitations of the Study

This study had a number of limiting factors. First, the size of the sampling: ten high school career centers as the basis for making generalizations about career centers for secondary programs. Second, participant observation because the author maintains a position as coordinator of a career center in one of the ten schools studied. Third, the obvious possibility of the apparent difficulty in distinguishing fact from the author's opinion. And finally, the dilemma in maintaining a critical perspective with a long term experiential base, selective biases, and the emotional passion to find innovative data as affecting the reporting and interpretation of the research data.

Implications

The career center, once a creative and novel concept, appears to be experiencing the stage of midlife crisis. The first centers, initiated in the late sixties and early seventies have come of age. But from all appearances, these centers (and those recently established) seem to be

maintaining a marked similarity (with few exceptions) to the early classroom or library model.

As we proceed into the 21st century, the center stands in marked contrast to the futuristic environment of the adolescent it serves. The offices where teens work buzz with all of the latest technology; electronic communication takes mini seconds. The malls where teens shop and socialize are "electric" and magnetize them with their high tech color, sound and sense of excitement. The status quo of career centers must change or the counselor's professional credibility and ultimate effectiveness as a human resource (catalyst) will stand challenged, or worse, ignored. The perception of career counselors talking about the "world of tomorrow" in tired old library settings or cramped "recycled" classroom spaces is far from ideal. How can counselors effectively communicate information via reference guides or college catalogs alone when their "customer", adolescents, are totally absorbed with MTV or CD-ROM?

Counselors can and do work in less than adequate spaces and learn to make use of dated materials and technology. They always have and probably always will continue to work against insurmountable odds for their students. The problem of forward movement is not usually about a lack of committed people but about a lack of commitment of money.

In the early stages of career center development, grant money (both state and federal) was abundant. In most cases, the schools readily embraced the theory of career education, provided space for a center, furnished it with "hand-me-downs", appointed a counselor and/or a paraprofessional, and left the development up to the person(s) in charge. (In Massachusetts, neither a state mandate nor guidelines existed.) When monies ceased, many centers (particularly those where staff salaries were funding-based) folded. In schools where this occurred, counselors (either alone or on a part-time basis), tried to keep the centers open and stocked with current materials while at the same time handling a caseload of students along with other multiple duties. Schools where salaries were not based upon funding fared better, and yet, most had personnel cuts or lost out by attrition. Depending upon the focus, priorities, and will of each Superintendent, the situation continues to be diminished or enhanced.

Recommendations

In supporting the findings of this research project it is recommended that guidance, and career center counselors in particular, consider the following relative to the implementation of a career center reorganization plan for the twenty first century.

1. The development of an Action Plan to enable counselors to work in conjunction with students, parents,

business reps, higher education and the local community to examine the current status of the center; to determine effective use of the center; to seek advice in planning a reorganization design; to estimate the cost factor; to develop achievable goals; and to implement the changes.

2. That career centers adopt and use National Career Development Competencies (a competency-based approach to career development) by area: self-knowledge, educational and occupational exploration and career planning; and by level: elementary, middle/junior high school, high school and adult to foster career development at all levels.

3. Local networks need to be established for counselors whose specific specialization is career education/career centers. The purpose would encompass continuing education, creative program development/sharing, possible product development and professional support.

4. Counselor role clarification needs to occur in terms of developmental guidance, career development, curriculum and partnerships.

These recommendations are intended to encourage broad participation and attain maximum benefits. Accomplishing something better does not mean reducing quality but enhancing it.

APPENDICES

APPENDIX A

THE QUESTIONNAIRE

CAREER RESOURCE CENTERS

1. ORGANIZATION OF CAREER RESOURCE CENTER

1.1. Background:

1.1.1. HOW OLD IS YOUR CENTER?:

How long since its conception? _____

How long have you occupied your current premises? _____

1.1.2. DIRECTOR/COORDINATOR

Is the same individual who originated the center still running it? Yes No

If not - how long has s/he been there? _____

1.1.3. IMPROVEMENTS

Where have there been improvements in the Center since its conception?:

	None	Few	Some	Significant	Great
college information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
career information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
layout/space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
staffing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
computerization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
staffing dissemination of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
information other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.2. Physical

1.2.1. SPACE

How much space (approximately) do you have? _____

Is this space adequate? _____

Do you have one room or separate office spaces? _____

Yes/No

1.2.2. ROOM SET-UP

Are reference materials organized according to **content** (e.g. college, career, financial aid) or according to **format** (e.g. books, catalogues, pamphlets/clippings, or video)?

Could you provide some brief detail? _____

What kinds of storage/filing systems are utilized (i.e. shelving, filing cabinets, display stands, counters etc?)

1.3. Staff

Number - full-time _____
 - part-time _____
 - volunteer _____

Titles _____

How do you divide the workload between staff? _____

Is staffing adequate?

Yes/No

1.4. Time :

How is the Center's time organized....e.g.?

Do you use a:

program

curriculum

drop-in, or
 referral approach?
 combination (e.g.?) *(If Yes, please give details)*

2. INFORMATION ORGANIZATION/DISSEMINATION

2.1. Storage

2.1.1. SYSTEMS USED:

Career materials:

BY?:

Title
 Cluster
 D.O.T.#
 Other: _____

College information:

College catalogues		alphabetical	random
By:	geographical area	<input type="checkbox"/>	<input type="checkbox"/>
	state	<input type="checkbox"/>	<input type="checkbox"/>
	college name	<input type="checkbox"/>	<input type="checkbox"/>
	combination state/college name	<input type="checkbox"/>	<input type="checkbox"/>

Could you give brief details:

Job information

Does the Career Center house job information?	Yes	No
Is the Center responsible for job placement?	Yes	No
Are Job Preparation Workshops delivered?	Yes	No

Other information.

2.1.2. TECHNOLOGY USED

Do you have a computerized guidance system? Yes No
If yes - type? _____

Other computer-based systems in the Center? Yes No
If yes - function _____
type? _____

2.1.3. CAREER TESTS, INTEREST INVENTORIES USED

Do you offer career tests/interest inventories Yes No

Please list:

2.2. Retention

How long do you keep information on file/in the system?

College information: _____

Career information: _____

What do you see as the advantages to storing outdated information? (e.g. last years' catalogues)

2.3. Dissemination

2.3.1. DELIVERY

How do you deliver the information?

Do you have:

- a) request form
- computer services
- other searches
- b) Student package?
- If yes: what is included

c) classroom/auditorium presentations

d) bulletin boards

i) outside the Center

ii) in various locations within the school *(Please specify)*

e) wall charts/directories in the Center

f) other _____

2.3.2. MOST INFLUENTIAL SOURCES

Which resources are used most often by students to make decisions?

College decisions:

(catalogues, guides, (e.g. Fisks') indexes (e.g. College Board indexes), computer, videos, other?) *Please list the top 5*

Career decisions:

(Books, indexes (e.g. OOH and DOT), videos, pamphlets, computer, other) *Please list top 5:*

2.4. Meeting Needs

2.4.1. WHICH GRADE LEVEL USES THE CENTER MOST?

2.4.2. HOW ARE THE PARTICULAR COLLEGE/CAREER NEEDS OF EACH GROUP OF STUDENTS MET?:

(briefly)

9th grade:

10th grade:

11th grade:

12th grade:

Bilingual

Minority

2.4.3. DO YOU ORGANIZE/LEAD TEACHER/COUNSELOR EDUCATION PROGRAMS?

Do you organize continuing training/updating in career education for teachers and counselors?

Yes No

2.5. User Friendly?

Would you describe your Center as user-friendly?

Yes No

Could a student use the Center and gain all the information s/he required if there was no staff member present?

Yes No

In the past five years have you reconsidered the relationship of the physical layout/organization of materials as it relates to ease of student use?

Yes No

(If Yes, please give details)

2.6. Pro-active/Reactive

Do you consider that your information dissemination program/approach is pro-active or reactive?
Explain/Give examples of techniques you have undertaken:

2.7. Budget

Sources

How much

2.8. The Future

What future plans/dreams do you have for your center?

APPENDIX B

LETTER & CONSENT FORM

June 10, 1993

Career Resource Center
Cambridge Rindge and Latin
459 Broadway
Cambridge, MA 02138

Dear

As a graduate student, University of Massachusetts (Amherst), I have finished my course work and Comprehensive Exam. Presently, I am conducting research for my dissertation. Since I have spent eighteen years in the field of counseling and career education, I am investigating:

- 1) historical, current and future concepts re: design/organization of Career Centers;
- 2) resource information--organization and delivery systems.

The enclosed questionnaire has been designed to provide me with data from a sampling of High Schools in the local area. Career Resource Specialists/Counselors like yourself will be completing this questionnaire. (This information should prove beneficial to all of us). Preparing the format, I found myself thinking about what I have now and yet, exciting about possible innovations as I up-date materials and renovate the Career Center for the 21st Century.

I know that I cannot be creative, progressive and work in a vacuum. Research of the literature has its place. In addition, I'm looking for that special dynamic--the REALITY--the "insight" that only experience can give. I really need your assistance to move forward--to complete my dissertation requirement.

Your name was given to me by the main Office of your High School as the person responsible for either the supervision of the Center or for the "day-to-day" management. (If this is not correct, would you please forward the entire packet of materials to the appropriate person)?

I realize that this request comes at the end of a LONG school year and that your schedule is busier than ever as you try to "wind down". I also have come to appreciate the

comraderie that exists among the professionals whose specialty is Career Education. I am appealing to this spirit in requesting that you take time to complete and return this survey. (It should take approximately 30-45 minutes). Because I value your time, and as a gesture of my appreciation, I will mail you (or the Charity of your choice) \$15.00 when I receive your COMPLETED questionnaire. For your convenience, I have enclosed a stamped, self-addressed envelope. PLEASE: mail by Wednesday, June 30. Thank you! Enjoy a happy and RELAXING summer vacation!

Sincerely,

CONSENT FORM

I voluntarily consent to participate in the study by completing the enclosed questionnaire. I welcome any comments that you may have concerning any aspect of Career Centers not covered in the instrument.

Respecting your privacy, responses will be used as you desire. Please check the appropriate box:

- My responses are given without restriction
- My responses are confidential.

Name..... (Please PRINT) (SIGNATURE)

(Please attach this form to the COMPLETED questionnaire.)

APPENDIX C

TABULATION OF RESPONSES

CAREER RESOURCE CENTERS

1. ORGANIZATION OF CAREER RESOURCE CENTER

1.1. Background:

1.1.1. HOW OLD ARE THE CENTERS?:

How long since conception?

A	B	C	D	E	F	G	H	I	J
2	6	9	9	16	17	18	18	27	30

Mean 15.2 Median 16.5 Range 2 - 30

A	B	C	D	E	F	G	H	I	J
2	6	6	8	10	11	12	16	17	20

Mean 10.8 Median 10.5 Range 2 - 20

1.1.2. DIRECTOR/COORDINATOR

Is the same individual who originated the center still running it?

A	B	C	D	E	F	G	H	I	J
Y	Y	N	N	N	Y	Y	N	N	N

If not - how long has s/he been there?

A	B	C	D	E	F	G	H	I	J
		2	6	8			3-4	25	()

Mean 9 Median 6 Range 2 - 25

1.1.3. IMPROVEMENTS

Where have there been improvements in the Center since its conception?:

	No Answer	None	Few	Some	Significant	Great
college information				I	+++	
career information		I		I	+++	
other information			I		+++	I
layout/space	I		I	I		
staffing		+++	I			
computerization	I				+++	
dissemination of information			I			I

Other: E. planning handbook for juniors, monthly newsletter, specialty booklets (e.g. The 13th Year); H videos; I copier, laser discs, furnishings, bulletin boards, summer opportunities.

1.2. Physical

1.2.1. SPACE

How much space (approximately) do they have?

A	B	C	D	E	F	G	H	I	J
1 room	1200sq.ft	1600sq.ft	550sq.ft	new	100sq.ft	1600sq.ft	760sq.ft	suite	400sq.ft

Is this space adequate?

A	B	C	D	E	F	G	H	I	J
N	Y	Y	Y	N/A	Y	Y	Y	N	Y

Do they have one room or separate office spaces?

A	B	C	D	E	F	G	H	I	J
1	1	1	1	N/A	sep. office	1	1	4	sep. office

1.2.2. ROOM SET-UP

Are reference materials organized according to **Content** (e.g. college, career, financial aid) or according to **Format** (e.g. books, catalogues, pamphlets/clippings, or video)? (**C** = Content; **F** = Format, **B** = Both)

A	B	C	D	E	F	G	H	I	J
C	C	F	C	B	C	C	-	B	B

Details provided

A: "basically content, although video, pamphlets etc are available together"

What kinds of storage/filing systems are utilized (i.e. shelving, filing cabinets, display stands, counters etc?)

All of the above for most - other comments: **A**: not many display stands; **D**: plastic labeled boxes; **G**: counter-tops, table-tops; **J**: a computer display and printer (C-LECT)

1.3. Staff

Number:

full-time:

A	B	C	D	E	F	G	H	I	J
3	1		1		3	2		1	3

part-time:

A	B	C	D	E	F	G	H	I	J
	1	1		3			1	2	

volunteer:

A	B	C	D	E	F	G	H	I	J
		2		3		2-6	10-15	8	

Is staffing adequate?

Yes/No

A	B	C	D	E	F	G	H	I	J
N	N	N	Y	Y	N	N	OK	N	()

Titles:

A: Counselors, Job Specialists; **C:** secretary; **D:** Director; **E:** Career Coordinator, Information Specialist, Work Experience Assistant; **F:** Senior Advisor for Guidance, Typist, Staff Assistant; **G:** Counselor, Secretary; **I:** Counselor-in-Charge, Secretary, Aide; **J:** Counselors

How do they divide the workload between staff?

A: As needed; **B:** No set workload; **D:** I do everything!; **E:** each has own specialty but helps others; **G:** exceed job description; **H:** volunteers have daily schedule of work assignments; **I:** C.I.C. directs, counsels, interprets tests, aide: college counseling, special programs, secretary processes materials, phone listings etc; **J:** shared.

1.4. Time :

How is the Center's time organized?

Approaches used:

program

A	B	C	D	E	F	G	H	I	J
1						1			

curriculum

	1						1		
--	---	--	--	--	--	--	---	--	--

drop-in, or

1	1	1	1	1	1	1	1	1	1
---	---	---	---	---	---	---	---	---	---

referral

1	1	1	1	1	1	1		1	1
---	---	---	---	---	---	---	--	---	---

Details provided:

A: Job Placement & Job Readiness sessions offered throughout the day; **B:** some teachers integrate lesson plans into their curriculum; **D & I:** appointment book - quick questions on the spot, materials find on their own; **G:** curriculum is ideal (not enough time) need thematic packages; **H:** Guidance visits in English classes; **J:** introduce students to area, show them how to use resources.

2. INFORMATION ORGANIZATION/DISSEMINATION

2.1. Storage

2.1.1. SYSTEMS USED:

Career materials:

BY?:

Title

A	B	C	D	E	F	G	H	I	J
1	1			1		1			

Cluster

	1	1	1		1	1		1	1
--	---	---	---	--	---	---	--	---	---

D.O.T.#

								1	
--	--	--	--	--	--	--	--	---	--

Other:

								G.O.E.	
--	--	--	--	--	--	--	--	--------	--

Details provided:

B: stacks; **D:** similar books together, pamphlets in boxes; **G:** handouts outside Center; **H:** G.O.E. (Guide to Occupational Exploration); **I:** occupations related to school subject, C-LECT computer program.

College information:

College catalogues

(All alphabetical - no random)

By:

geographical area

A	B	C	D	E	F	G	H	I	J
			1		1	1		1	

state

						1	1		1
--	--	--	--	--	--	---	---	--	---

college name

1	1	1	1	1	1	1	1	1	1
---	---	---	---	---	---	---	---	---	---

Details provided:

B: section for 4 & 2 year, skills, military etc; **C:** Mass. alpha, then the rest alpha; **D:** black colleges separate, vocational. tech. separate; **G:** alpha geographically by state, alpha by college within state, Mass. separate, 2 & 4 year, black colleges & international schools separate; **J:** by state alpha & then in state alpha.

Job information

Does the Career Center house job information?

A	B	C	D	E	F	G	H	I	J
Y	Y	Y	N	Y	N	N	Y	Y	N

Is the Center responsible for job placement? Yes No

A	B	C	D	E	F	G	H	I	J
Y	N	Y	N	N	N	N	N	N	N

Are Job Preparation Workshops delivered?

A	B	C	D	E	F	G	H	I	J
Y	N	N	N	N	N	Y	N	N	N

Other information.

E: Community Service Program, Work Experience Program, Summer Opportunity Files;
 G: Job Readiness Workshops with hands-on activities; J: cut from budget, DECA program and Workstudy combined.

2.1.2. TECHNOLOGY USED

Do they have a computerized guidance system? *All do*

- Types GIS (A, F, G)
- ACES (B, C)
- C-LECT (E, H, J)
- Chronicle Guidance (H)
- Petersons for 2 & 4 year (I)
- ACT Discover Program (D)

Other computer-based systems in the Center? Yes/No

A	B	C	D	E	F	G	H	I	J
N	N	N	N	Y	N	Y	Y	()	N

If yes - functions:

G: Wordprocessing; Desk tops have Microsoftword; H: print labels, lists etc;

Type: E: College Search(Petersons); G: PFS H: IBM clone; J: College Board Explore;

2.1.3. CAREER TESTS, INTEREST INVENTORIES USED

Do you offer career tests/interest inventories? *All do.*

Please list:

- Harrington O'Shea (B, D, F, G, J)
- CDM on GIS (A, E)
- NCS (National Computer Service) Career Assessment Survey (C, I)
- Kuder Interest Test (F, I)
- Strong Campbell (F, I)
- IDEAS (Interest Determination Exploration and Assessment System) (A)
- ACT Discover Program Interest Test (D)
- APTI COM (Aptitude & Interest test on Computer) (D)
- Chronicle Guidance Career Quest (H)
- C-Lect Personality test (J)
- ASVAB (J)

2.2. Retention

How long do they keep information on file/in the system?

College information:

A	B	C	D	E	F	G	H	I	J
2	1	3	2	until replaced by new	1	2	1	1-5 (until replaced)	2-3

Career information:

A	B	C	D	E	F	G	H	I	J
As long as current	1	3	2	until replaced by new	2	2-5	1	5	2-3

What do they see as the advantages of storing outdated information?

B: source from which to start if next year's not received; **C:** recent information usually valid - keeps up supply as we loan out; **D:** new ones sometimes stolen; **E:** to be given away; **G, H:** students can take home; **J:** sometimes information not updated yearly.

2.3. Dissemination

2.3.1. DELIVERY

How do they deliver the information?

a) request form:

computer services

A	B	C	D	E	F	G	H	I	J
1	1			1	1	1			

other searches

A	B	C	D	E	F	G	H	I	J
	1							1	

b) Student package:

A	B	C	D	E	F	G	H	I	J
1		1				1			

Includes: **A:** College/financial application procedures and forms; **C:** booklet: directions and samples for "everything" **G:** College Fair preparation, Financial Aid, SAT information.

c) classroom/auditorium presentations:

A	B	C	D	E	F	G	H	I	J
1	1	1	1			1	1	1	1

d) bulletin boards:

i) outside the Center

A	B	C	D	E	F	G	H	I	J
1	1		1	1	1	1	1	1	1

ii) in various locations within the school

A	B	C	D	E	F	G	H	I	J
1	1				1	1	1	1	1

Details given:

B: bulletin board in Guidance, HR's, over PA; **J:** cafeteria, DECA store.

e) wall charts/directories in the Center

A	B	C	D	E	F	G	H	I	J
1	1	1		1	1	1		1	

f) other : **D:** PA system, notices re field trips around bulletin boards, notes to teachers; **I:** soft and hard-covered books, occupation. briefs, monographs; **J:** through class (small group) discussion, the class "Getting ready for College", visits & uses the Center.

2.3.2. MOST INFLUENTIAL SOURCES

Which resources are used most often by students to make decisions?

College decisions: (catalogues, guides, (e.g. Fisks') indexes (e.g. College Board indexes), computer, videos, other?) <i>Top 5 given by each of the Centers</i>				
A	B	C	D	E
College Bd books College Handbooks catalogs GIS (computer) videos (little used)	counseling/guides computer video college night college reps	Barrons video counseling catalogs	Barron's College Handbook Fisks's Riggs' Recomnd. Index of Majors	College Handbook Barron's Insider's College videos CollegeScope (Barrons)
College decisions: (cont.)				
F	G	H	I	J
computers videos College Bd posters	GIS (computer) College Handbooks catalogs H.O'Shea Test videos	counselor resources guides catalogs C-LECT (computer) videos	catalogs guides indexes videos	The Right College College Board series Lovejoy College Guide Barron's GIS (computer) & videos

Career decisions: (Books, indexes (e.g. OOH and DOT), videos, pamphlets, computer, other) <i>Top 5:</i>				
A	B	C	D	E
OOH	pamphlets computer career night counseling teachers	counseling printed materials	Occ. Outlook <small>video</small> Enycl. of Careers Chronicle <small>books & guides</small> Guide: Occ. Expirtn DOT <small>(not used much)</small>	career videos interest tests
F	G	H	I	J
videos pamphlets computers indexes books	GIS & speakers OOH videos career books pamphlets	counselor C-LECT (computer) Career Quest <small>(low level)</small> books, indexes pamphlets	books indexes pamphlets career programs. bnfs	C-LECT (computer) C-LECT books G.O.E. packets business visitors Jr. coll/tech.schl *

2.4. Meeting Needs

2.4.1. WHICH GRADE LEVEL USES THE CENTER MOST?

A	B	C	D	E	F	G	H	I	J
12	12	11	11&12	J&S	12	11&12	11&12	11	S

2.4.2. HOW ARE THE PARTICULAR COLLEGE/CAREER NEEDS OF EACH GROUP OF STUDENTS MET?:

(briefly)

9th grade:				
A	B	C	D	E
Career Awareness course	counselor/teacher information	orientation program	kids not thinking about life beyond high school	small groups to discuss interests
F	G	H	I	J
Col/Career Early Awareness Conference	Orientation session, tour of CRC, Open House for Parents 9 - 12.	English class visit orientation to guidance services	orientation/awareness job listings, occ. info., program planning, info on summer programs	individual & small group settings, parent b'fasts & nights
10th grade:				
A	B	C	D	E
Drop-ins, class workshops	counselor & teacher info	academic counseling	registration booklets (Coll. Board) & tests	small groups to discuss career info.
F	G	H	I	J
interviews and Kuder preference test	H.O'Shea Interest tests, career exploratory via teachers (at CRC)	Career inventory & research on occ. in English class	job listings, occ. info., program planning, info on summer programs, classes brought to CRC for course related searches	individual & small group settings, parent b'fasts & nights
11th grade:				
A	B	C	D	E
class workshops, field trips, drop-ins	counselor & teacher info., college reps. career & college nights	intensive counseling, evening groups	College process: registration materials, SAT tests, counseling, information	individ. counseling, re. post-secondary plans; career evenings including parents
F	G	H	I	J
PSAT, College Board Exams, GIS	SAT/ACH info., Job Readiness Training	English visits (2) in CRC	job listings, occ. info., program planning, info on summer programs, interest testing, college & career planning and counseling.	individual and small group settings, parent b'fasts & nights, College Fair, As above, Junior seminars, videos; class & individ. meetings.
12th grade:				
A	B	C	D	E
class workshops, field trips, drop-ins	counselor & teacher info., college reps. career & college night	evening groups, intensive counseling	College process: registration materials, SAT tests, counseling, information	individual counseling (re Coll. process), visits, reference; Financial Aid evening - students & parents
F	G	H	I	J
College Board Exams, GIS, College Fairs	Career & Coll. prep. Coll. tours & visits. Seminars, lunch talks.	English visits in CRC	job listings, occ. info., info on summer programs, College & career planning and counseling.	College rep. visits, videos, meetings, financial aid night; Coll. Fair; class & individ. meetings.

Bilingual				
A	B	C	D	E
same	same	same with ESL support	complete info. because don't know the process	same as 11th & 12th
F	G	H	I	J
College Fairs	AHORA support. Mass. Prep (Eng. Prep. Program.)	same	easier reading level. TOEFL materials; additional support	Not separate
Minority				
A	B	C	D	E
same	same	same with METCO support	specific direction	same as 11th & 12th
F	G	H	I	J
College Fairs	multicultural focus: speakers related to minorities.	same, including work	easy access to materials directed specifically at minority groups	Not separate

2.4.3. TEACHER/COUNSELOR EDUCATION PROGRAMS

Do they organize continuing training/updating in career education for teachers and counselors?

A	B	C	D	E	F	G	H	I	J
N	N	N	N	N	Y	Y	N	N	N

2.5. User Friendly?

Would they describe their Center as user-friendly?

A	B	C	D	E	F	G	H	I	J
Y	Y	N	Y	Y	Y	Y	Y	Y	Y

Could a student use the Center and gain all the information s/he required if there was no staff member present?

A	B	C	D	E	F	G	H	I	J
Y	Y	()	Y	N not all	N	N not all	()	N	Y

In the past five years have they reconsidered the relationship of the physical layout/organization of materials as it relates to ease of student use?

A	B	C	D	E	F	G	H	I	J
Y	N	Y	()	Y	N	Y	N	Y	Y

Details:

A: additional room; **C:** moved catalogs from alpha to region; **E:** moving to new area - part of guidance department; **G:** random selection by students need direction/thematic packets; **I:** would like classroom attached to suite to accommodate more students; **J:** reorganized counselor's offices (into Guidance suite together) Job Placement/WorkStudy area transformed to classroom for Senior seminars.

2.6. Pro-active/Reactive

Do they consider that their information dissemination program/approach is pro-active or reactive? (P = Proactive; R = Reactive; B = Both)

A	B	C	D	E	F	G	H	I	J
B	P	R	P	P	P	B	P	B	P (becoming more so)

Examples of techniques undertaken:

A: workshops in class; **C:** neither time nor staff to do it right; **D:** speakers & fieldtrips, senior assemblies on alternative programs; **E:** PA new information daily, give away materials, College Open House & Scholarship Files; **H:** updating career material, taskforce (parents, administrators & counselors), visited career centers, purchased Chronicle Guidance System; **I:** outreach: school & College Nights; visits to Jr HR's, presenting at Parents' Nights, involvement on committees; **J:** better organization and dissemination, more parent involvement.

2.7. Budget

Sources

A	B	C	D	E	F	G	H	I	J
school	school initially Parents Advisory once	town	guidance	school	?	school	guidance	school	() PTSA grants

How much

A	B	C	D	E	F	G	H	I	J
\$2,500		\$2,000	Don't know	\$420 \$1,000 publicatons	\$22,000 GIS license for 17 schools	5,000 materials	Don't know	\$1,300 balance uncertain	()

2.8. The Future

What future plans/dreams do Directors have for their Career Resources Centers?

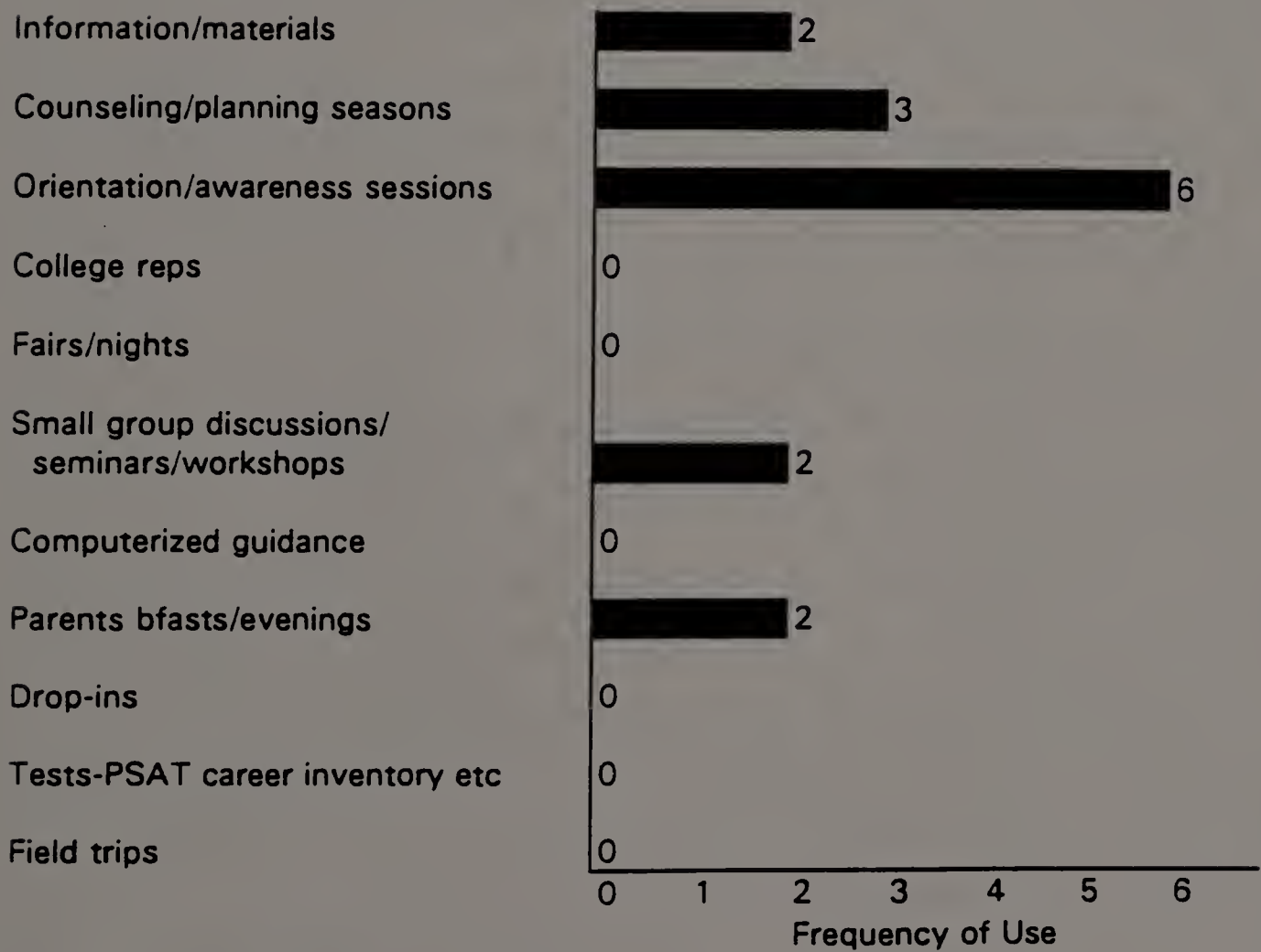
Main Responses:

A	B	C	D	E
more space display furniture, more staff	need volunteers, paraprofessionals, working daily; would love interns	keep open, more volunteers plead for staff and budget	more official part of guidance program - not just the motivated ones to come	new accom modatio n.
F	G	H	I	J
increase education technology aspect develop proposals addressing relevant career & education issues	21st Century "look" & "feel" - color, music; design with students' help fund through skill contribution from school graduates	FT & PT counselor in center	physical expansion increased staffing, funding to update obsolete materials	maintain program and funding

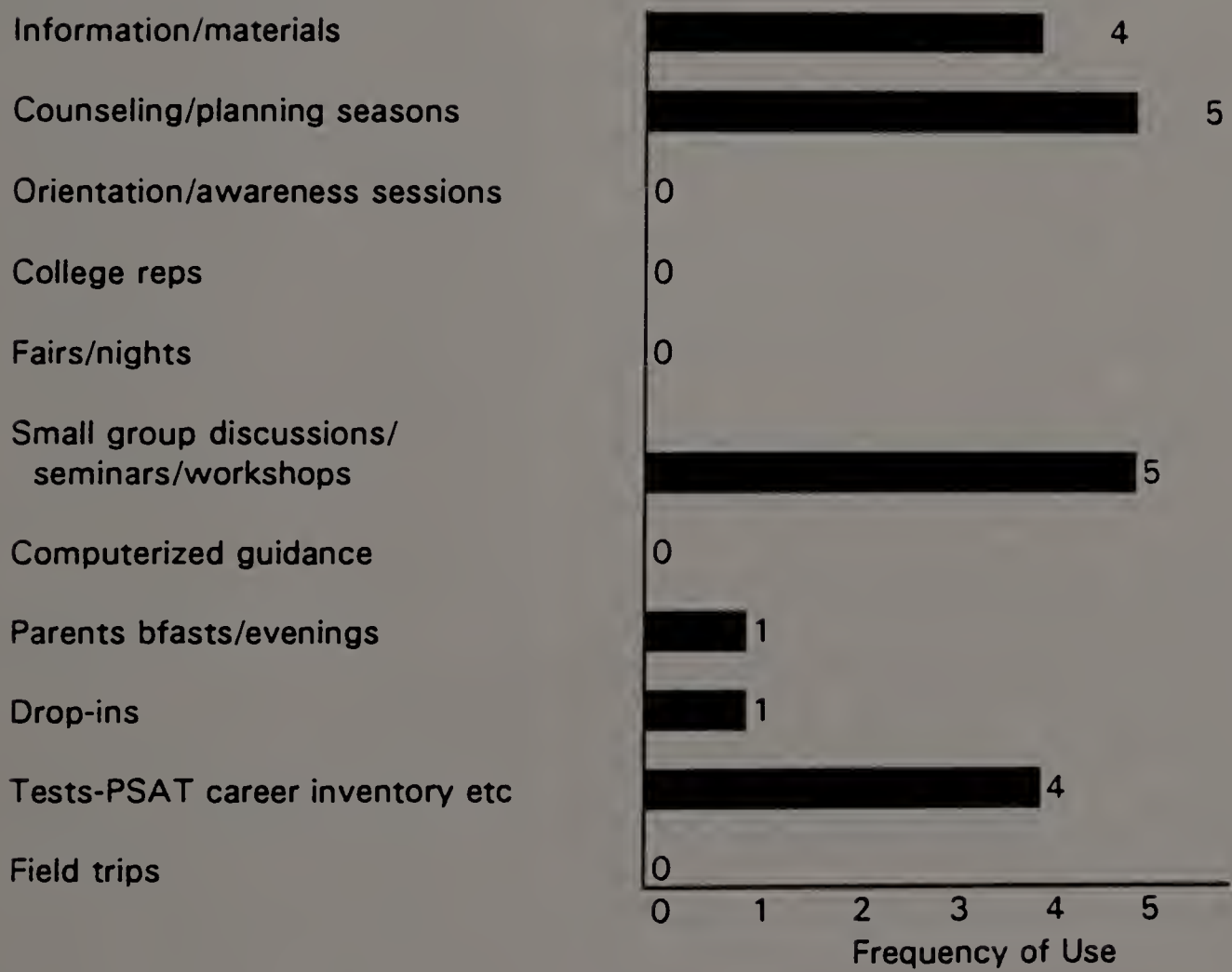
APPENDIX D

MEETING STUDENTS' NEEDS: GRAPHS & TABLES

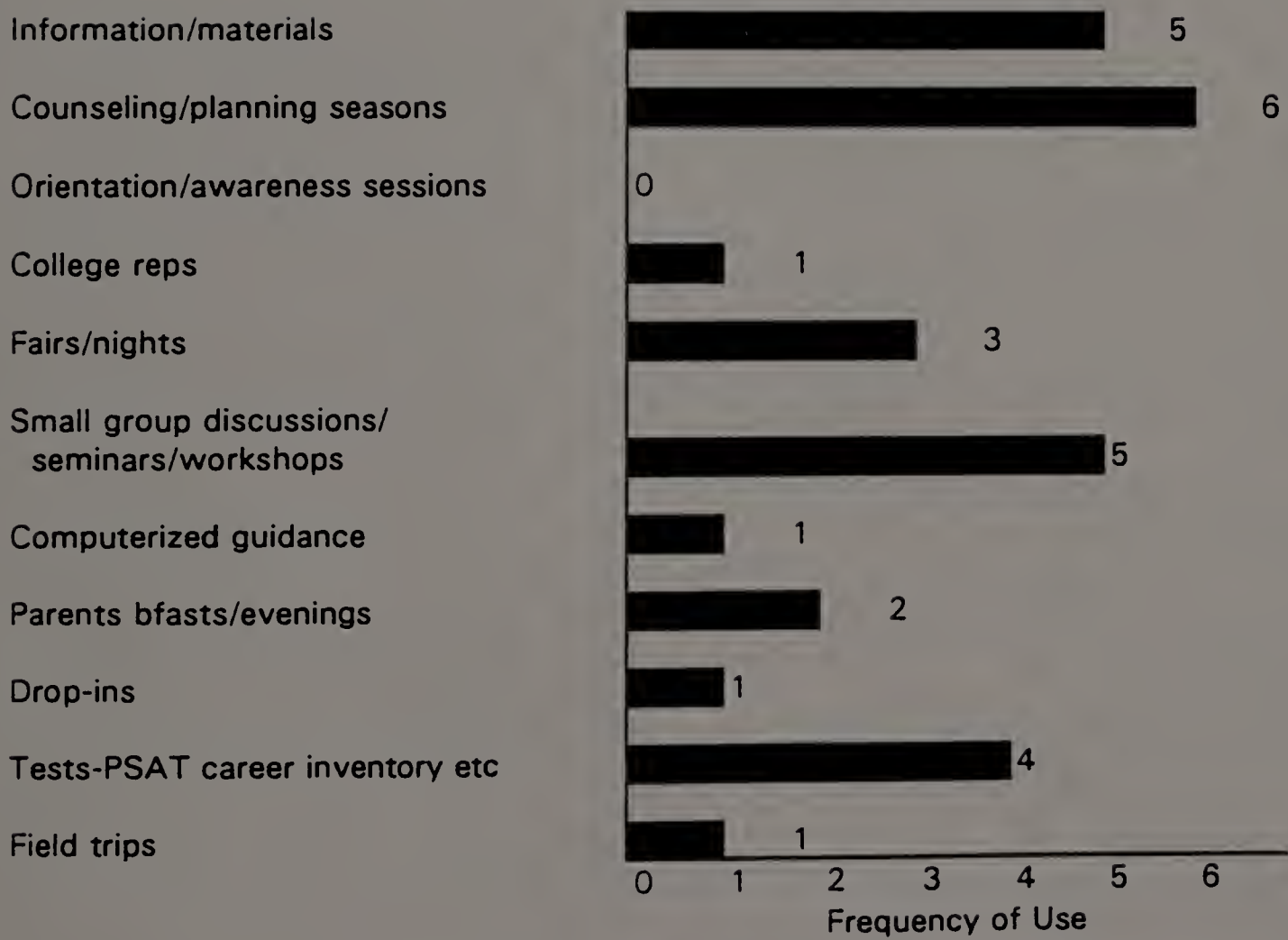
Meeting the Needs of 9th Graders



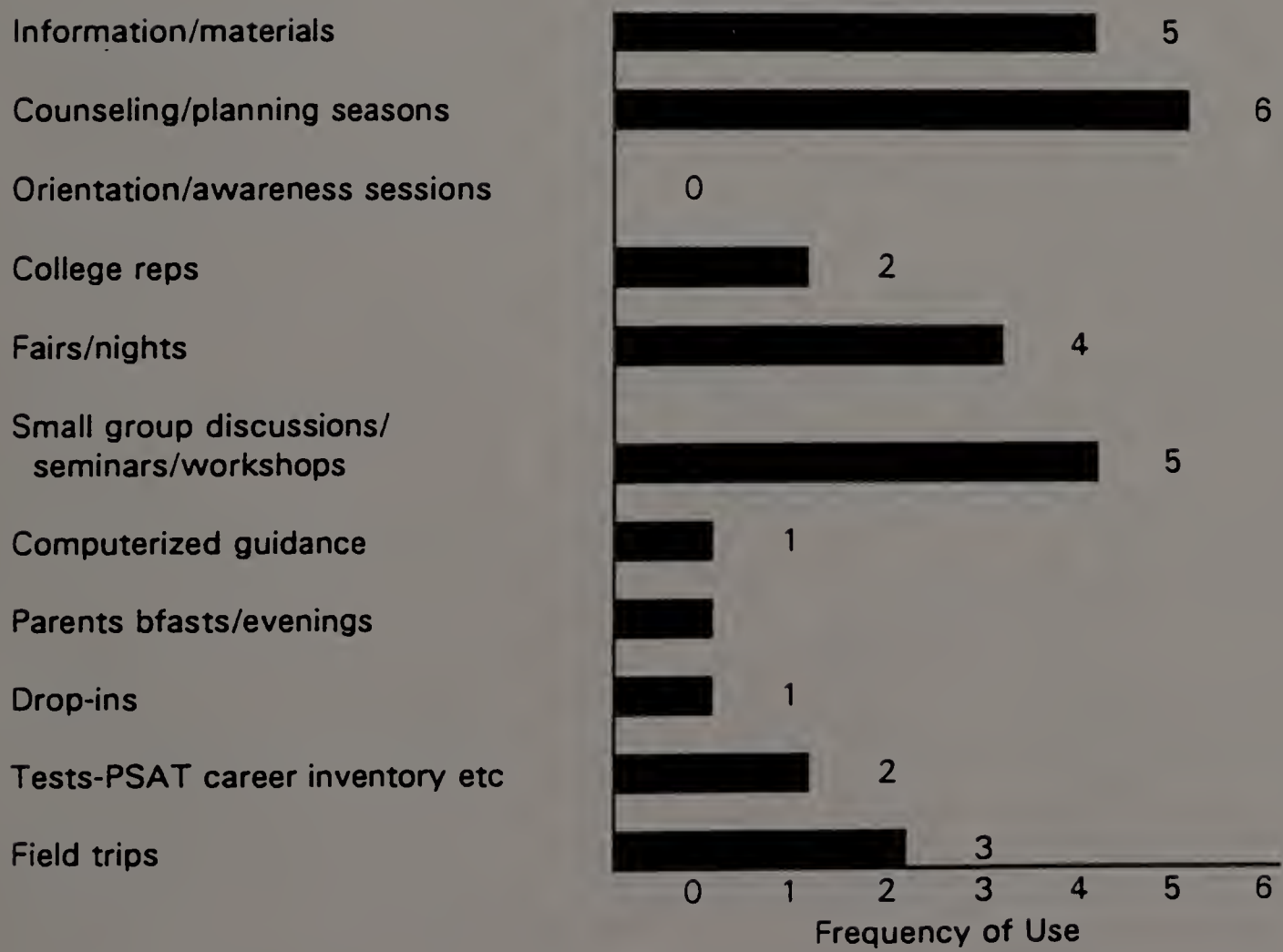
Meeting the Needs of 10th Graders



Meeting the Needs of 11th Graders



Meeting the Needs of 12th Graders



Method	<i>Meeting the Students' Needs</i>			
	9th Grade	10th Grade	11th Grade	12th Grade
information/ materials	2	4	5	5
counseling/ planning sessions	3	5	6	6
orientation/ awareness sessions	6	0	0	0
college reps	0	0	1	2
Fairs/ nights	0	0	3	4
small group discussions/s seminars/ workshop	2	5	5	5
parents bfasts/ evenings	1	1	2	1
drop-ins	0	1	1	1
field trips	0	0	1	3
tests - PSAT, career inventory et	0	4	4	2
Computerized Guidance	0	0	1	1

APPENDIX E

IMPROVEMENTS: CENTERS UNDER & OVER 15 YEARS OLD:
COMPARISON CHARTS

COMPARISON OF RESPONSES TO QUESTION 1.1.3.
Improvements Over Time

CENTERS OVER FIFTEEN YEARS OLD - (E - J)

1.1.3. IMPROVEMENTS

Where have there been improvements in the Center since its conception?:

	No Answer	None	Few	Some	Significant	Great
college information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="II"/>	<input type="checkbox" value="IIII"/>
career information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="IIII"/>	<input type="checkbox"/>
other information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="II"/>	<input type="checkbox" value="III"/>	<input type="checkbox" value="I"/>
layout/space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="III"/>
staffing	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="II"/>	<input type="checkbox"/>	<input type="checkbox"/>
computerization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="IIII"/>	<input type="checkbox" value="II"/>
dissemination of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox"/>

CENTERS UNDER FIFTEEN YEARS OLD - (A - D)

1.1.3. IMPROVEMENTS

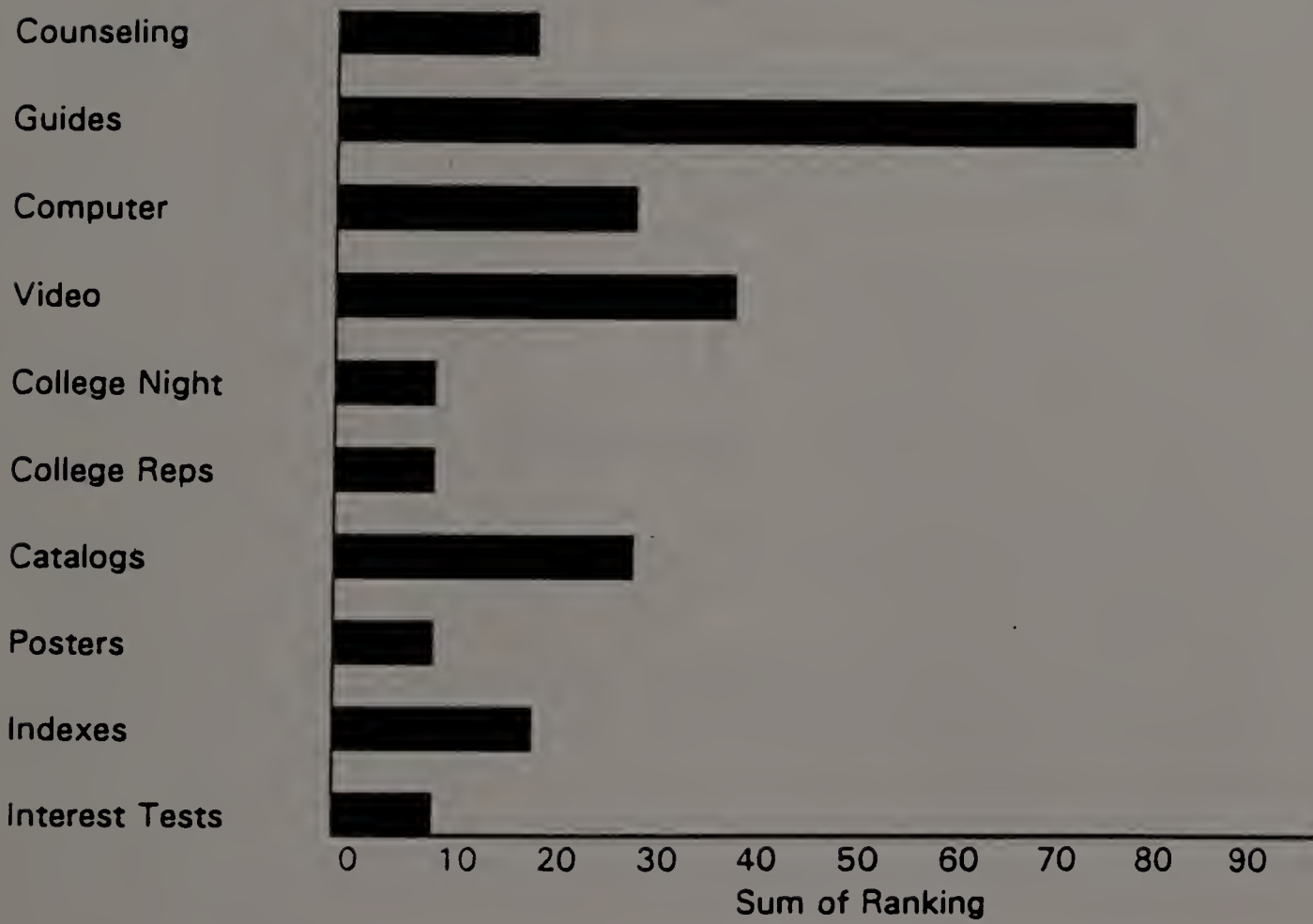
Where have there been improvements in the Center since its conception?:

	No Answer	None	Few	Some	Significant	Great
college information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="III"/>	<input type="checkbox"/>
career information	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="II"/>	<input type="checkbox"/>
other information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>
layout/space	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>
staffing	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
computerization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>
dissemination of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox" value="I"/>	<input type="checkbox" value="I"/>	<input type="checkbox"/>	<input type="checkbox"/>

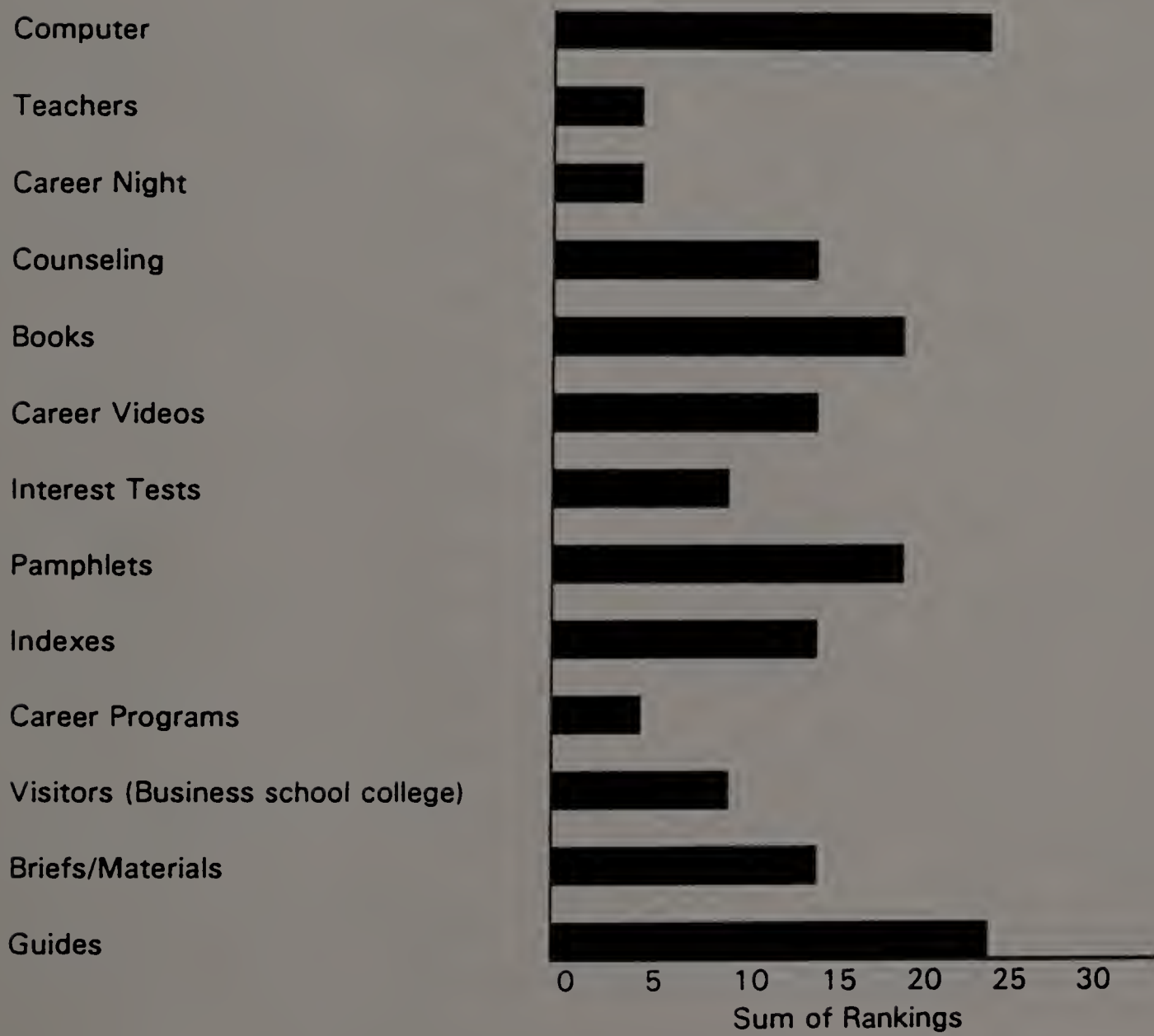
APPENDIX F

INFLUENTIAL SOURCES GRAPHS

Most Influential Sources--College



Most Influential Sources--Career



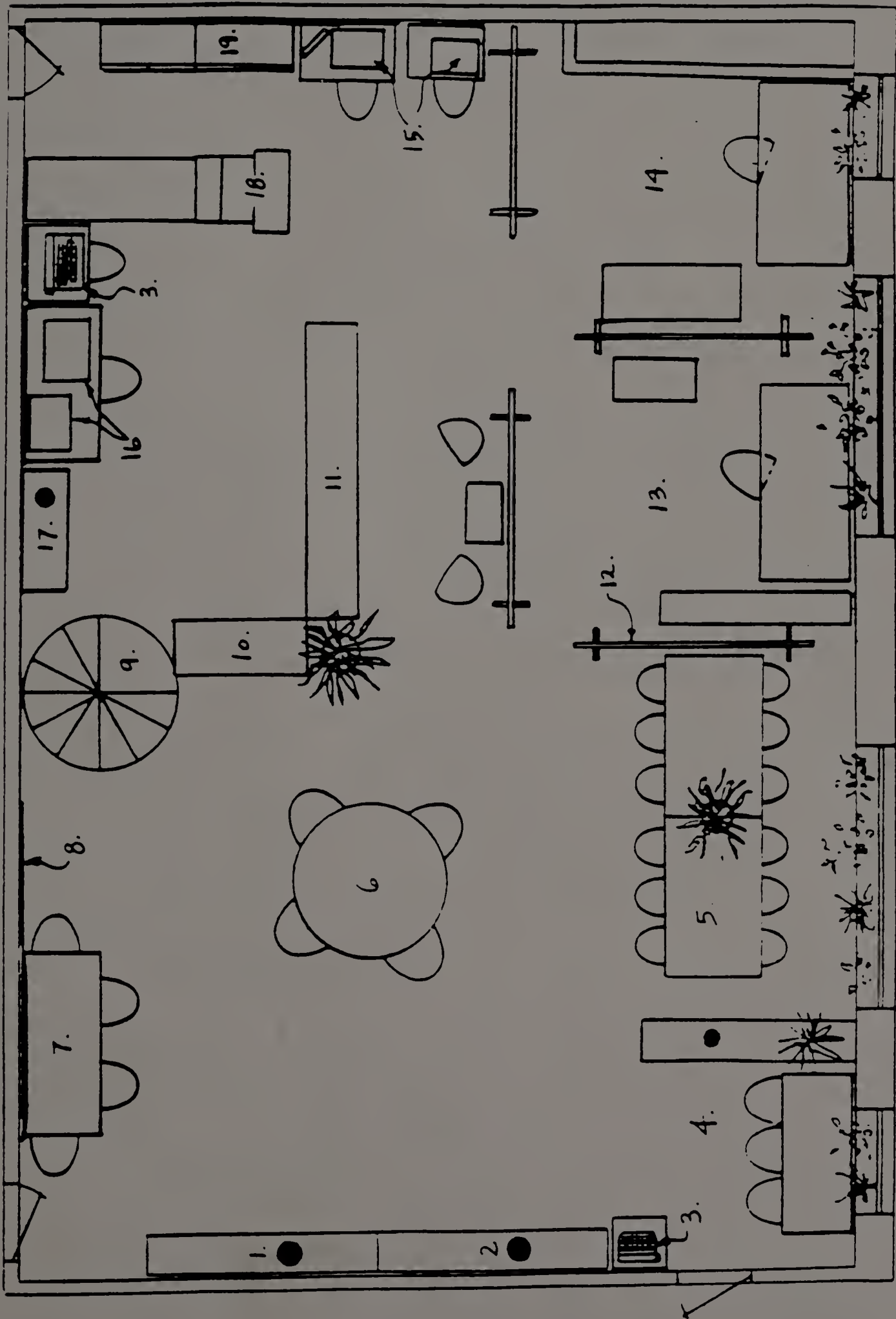
APPENDIX G

FUTURE PLANS CHART

2.8. THE FUTURE	
	Responses
More staff	5
(volunteers, interns, paraprofessionals etc)	
Greater budget	4
More space	3
More furniture/materials update	2
Official recognition	1
Increase educ. technology aspect	1
maintain program	1
21st century look/feel	1

APPENDIX H

CAMBRIDGE RINDGE AND LATIN CAREER RESOURCE CENTER



KEY

1. Vocational-Technical Information
2. College Information
 - a. Two year
 - b. Four year
 - c. In-state
 - d. Out-of-State
3. Typewriters
4. Career "Corner"
5. Conference Table
6. Conference Table
7. Conference Table
8. Bulletin Board
9. Spiral Staircase
10. Reference Material
11. Test Information and College Admission Guides
12. Chalkboard
13. Conference Space
14. Director's Office
15. Computer Station--Guidance Information System
16. Computer
17. Financial Aid Information
18. Files
19. Private Lockers for Staff

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