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APPLIED RECREATION RESEARCH: THE MISSING LINK BETWEEN THEORETICAL RESEARCH AND THE PRACTITIONER

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ABSTRACT

In recreation there is a gap between theoretical research and the practitioner. This gap is partially caused by too little emphasis on the applied research and development function. With a greater applied contingent there would be more continuity because information will be put in a more usable form. The purpose of this article is to analyze problems and propose a model to increase continuity between theory and practice. The problem has been barriers established between the information flow points. The emphasis has been on internal communication instead of transfer of information. The solution is to improve the quality of information flow and increase the use of the information once it has been transferred. The institution within society that has the greatest potential for helping to achieve this is higher education.

The gaps which currently exist between theoretical recreation research and the effective utilization of research findings by practitioners represent a problem [1-4]. An excellent example of an effort to bridge these gaps is the Information and Research Utilization Center established by the American Alliance for Health, Physical Education and Recreation for the coordination of information about the handicapped. Despite cognizance of the

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problem, little has been done to conceptualize, analyze, and address it. Theoretical research has been conducted mainly for reasons unrelated to the practitioner and, therefore, practitioners usually find little information that can be utilized in developing programs to serve clientele [5, 6]. Another problem has been that research is usually conducted in non-representative localities and/or on non-representative populations so that the information usually does not have wide applicability to a practitioner's problems [5, 6]. In fact, even when similar methodologies are used to replicate studies, there is generally a lack of consistency in the results.

The need for information on which to make decisions has been so great during the past decade that the practitioners have conducted numerous surveys [1, 2, 7]. These studies have been characterized by a lack of good design and, therefore, the information has been of limited quality [8]. The questions raised have been so practical that they have deleted many of the theoretical constructs that provide understanding of component relationships and transferability of findings. Another weakness is that the data have not been quantitatively analyzed to identify more definitive conclusions. Data however have provided base line information for program development.

If there is to be continuity between theory and practice, there needs to be a synthesis of the theoretical researchers and practitioners viewpoints into a comprehensive program. There are two approaches that can add continuity between theory and practice. The first approach centers on information collection and processing [9-11]. This involves the methods and procedures for obtaining quality information and putting it in a usable form. The second approach focuses on information dissimination and utilization [9-11]. This phase emphasizes isolating the proper channels for facilitating the use of this information. This discussion is undertaken to illucidate the problems involved with each approach and how continuity between theory and practice can be increased. This article is not meant to be definitive but only suggestive to isolate the points of linkage between research and practice that holds implications for the development of a comprehensive model to increase continuity. The following discussion will utilize an information flow systems approach and focus on the sub-system components and the relationships among these components.

Information Flow Systems

The basic components of a macro information systems of analysis are:

1. basic research,
2. applied research and development,
3. the practitioner, and
4. the consumer [10, 12-14].

Organizations within society such as government and business and industry have a profound influence upon location and function of each of these subsystem activities [15, 16]. For example, basic recreation research has been conducted by university personnel, governmental organizations such as the Forest Service, private industry such as Campground Owners, private interest organizations such as the National Rifle Association and the Izaac Walton League. Organizational roles are important because they are the agents within the society that stimulate and inhibit the macro system action [17, 18]. The important characteristics of these organizations are primarily centered on their functional roles that relate to their ability to act as an agent of change within the society. There are ten functional roles of these organizations:

1. planning,
2. design,
3. evaluation,
4. monitoring,
5. installation,
6. support,
7. coordination,
8. protection,
9. control, and
10. facilitation [19-23].

Of these functions the linkage roles of coordination and facilitation are among the most important because they serve a refinement function, that is, putting the information in the proper form [24-27]. (See Figure 1.) A problem with recreation has been the fitting of component elements together and specifying the types and forms of information needed to perform tasks. A focus of the coordination and facilitation roles is the opening of channels between theoretical researchers and the practitioner to know what types of information are needed and in what form for proper consumer information utilization [28, 29]. This will help specify the functional relationships among the linkage mechanisms to isolate the missing threads that must be repaired or replaced to achieve a coherent flow of information.

Each of the subsystem components will be characterized in the information collection and processing discussion in terms of

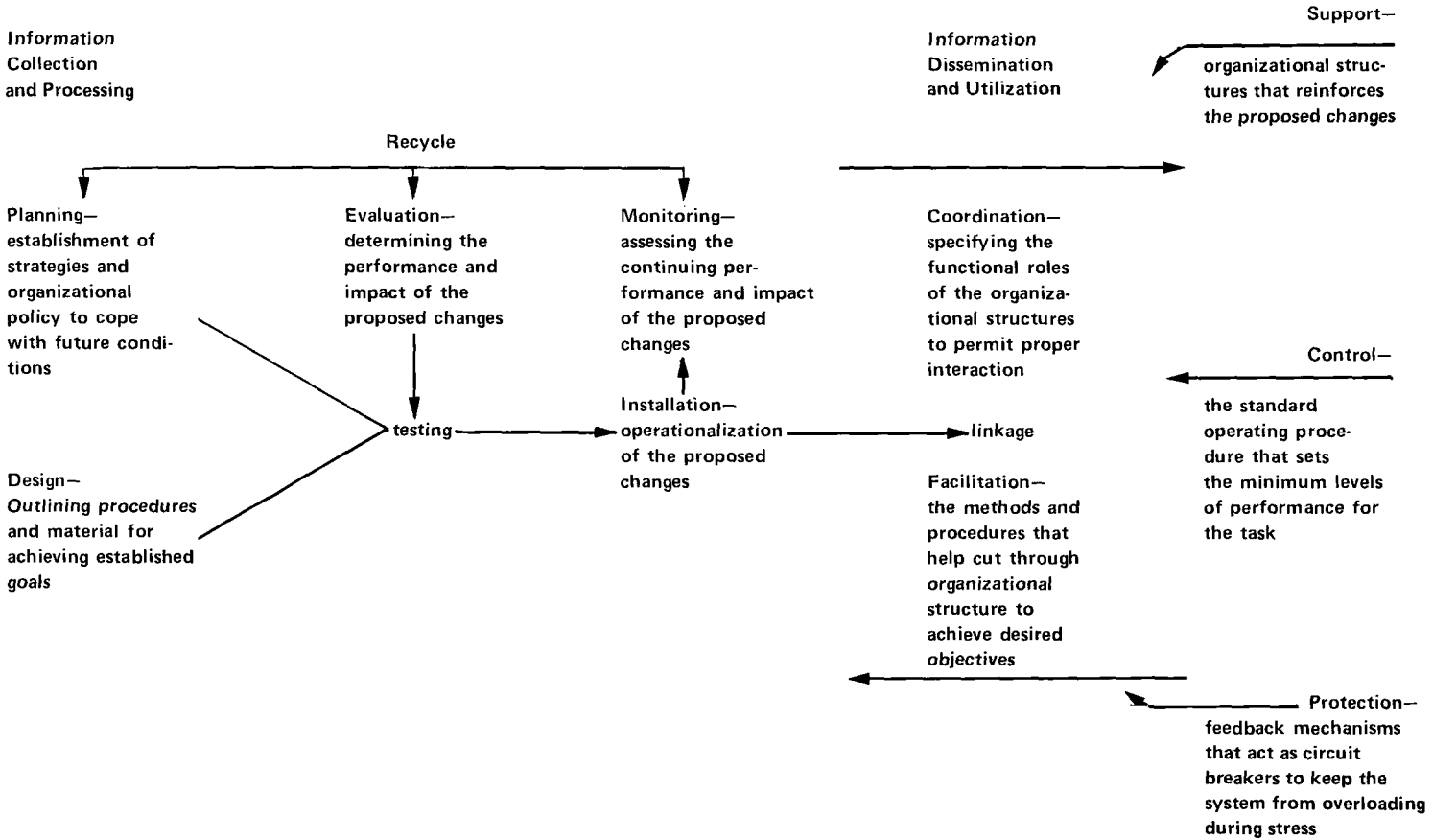

Figure 1. Processes of an organization for making proposed changed within society.

functional linkage roles. The information dissemination and utilization discussion will characterize each of the subsystem components in terms of organizational factors and how they influence change within society.

Information Collection and Processing

BASIC RESEARCH

A primary function of basic research is to explore and empirically examine theory to help explain observed phenomena [30]. Recreation research is presently in a descriptive phase of developing a body of theory, yet there are some studies that have moved more toward a dynamic phase of empirical research [4]. There are three elements of basic research theory, data, and methods [30-32]. A basic function of theory is to analyze relationships among component parts to isolate common threads. Data refers to those efforts to quantify observed phenomena in terms of identifiable units. Methods relate to the procedures by which data are collected and analyzed. Researchers usually develop hypothesis and design situations to empirically test these hypotheses. Two problems hampering the refinement of information from recreation research have been that it is usually conducted in laboratory settings, and it has sought to understand problems in terms of the general instead of the specific condition [6, 8]. Another problem has been that recreation theory has been a step child of the many content areas. This has complicated the development of recreation theory because of the diversity of opinions that exist for the defense of a particular discipline and defining how the elements fit into a total recreation program [5, 8, 33]. Even though in the past this has been a weakness, it will be a strength in the future because of the diffusion of ideas and the broad base of support.

Methods used to observe the recreational phenomena have been adopted from "hard" science, that is, the scientific method. Modifications have been made in this method based on the need to incorporate some aspects of the social research. Modifications that have been made in the scientific method have been a realization that the method is a logical procedure for solution of a problem. Various methods have been developed in recreation to implement the methodology ranges from "common sense rigorously applied" to math models and simulation. The units of measurement or data are a direct result of the amount of quantification needed

for the problem. The data aspects of basic research is usually intuitively related to the type of research being conducted. In many instances the units have helped define boundaries or limits so that the elements can be used for classification and standardization. The two most useful products developed by recreation research have been methods and data because these are areas that have direct application throughout the various sub-components of the macro system.

Basic research is the foundation on which research and practice should be based. Theories developed in basic research are the building blocks that will eventually help practitioners maximize utilization of information [34].

APPLIED RESEARCH AND DEVELOPMENT

A basic function of applied research and development is to refine theory developed by basic research for use by the practitioner [35]. Applied research and development has been a weak link in the information flow model because there are not many major industrial interests as yet involved or concerned with recreation activities [36]. In other disciples where there has been a large industrial representation, a strong applied research and development program has been initiated. Organizations such as the American Camping Association and the National Parks and Recreation Association have provided the leadership. In the past few years an industrial representation has begun to make their presence more felt, especially with consumers investing more dollars in recreation and leisure activities [37, 38]. Theory, data, and methods are also the building blocks of this phase [39-42]. Development of applied theory is a delicate process because it involves the blending of basic research and practical elements into a usable system [43]. Technology is the product of this process. It is a set of workable principles that guide the use of information by the practitioner. The ultimate function of technology is to provide products and services for the consumer's subsistence and comfort. Methods that have developed as a result of applied research and development has been termed a systems approach. This is a set of procedures based upon logic to solve problems. It is an adaptation of the scientific method to a practical setting. The main difference is that the scientific method is designed for the breaking down of elements into their component relationships whereas the systems approach is designed for the synthesis of elements. The art of applying a systems approach has not as yet significantly developed

in the field of recreation. Data procedures and units that have developed have been an extension of basic research. These procedures and units may provide for greater continuity between basic research and the practitioner, because the initial phases of theory or methods begin with the development of a system of classification based upon a measurement system. Therefore, such a classification systems with standard units of measurement may be a starting point for information refinement.

The steps of an applied research and development approach are [39, 42, 44, 45]:

1. isolating potential theories that have use in a practical situation,
2. testing theories isolated,
3. selection of the most useful theory and determining how the theory isolated can be applied in a specific situation,
4. selection of the proper methods to implement the chosen theory,
5. selection of the appropriate types of instrumentation and data units for the selected theory,
6. delineation of theory, methods, and data into a comprehensive plan for installation of the proposed change into a practical situation,
7. development of a prototype, and
8. diagnostic evaluation of the prototype's impact upon the system.

There are differences between applied research and development but for this discussion these phases have been put together because they both deal with the refinement of information to the practical situation. It is difficult to delineate differences between applied research and development because they represent one continuous process. However, applied research is usually associated with the refinement of the theory whereas development is usually associated with the refinement of methods and data.

PRACTITIONER

It is the function of the practitioner to utilize the information obtained from the applied research and development phases and refine it into a form usable by the consumer [4, 46]. An element that has an influence upon the flow of information in this phase is the practitioner's philosophy to adopt new procedures. Those with a more conservative philosophy usually want to maintain a status

quo. Those with a more liberal philosophy are eager to adopt new procedures even to the point of not giving proper consideration to the impact that such changes will have on the system. There must be a synthesis of these philosophies to achieve the proper mix or attitude toward information utilization [47, 48].

For the practitioner to put the information in the proper form, there are three basic processes: 1) service, 2) software, and 3) hardware [49, 50]. Service is the refinement of the information product into a number of viable forms for a multi-level program. Implicit in the service process is the simplifying of information to bridge the knowledge gap between applied research and development and the consumer. Software is the selection of an appropriate media for the transfer of a message once it has been simplified and prepared. The best software approach is usually multi-media that stimulates a variety of the senses. Also implicit in such a media approach is action on the part of the consumer. The hardware phase refers to the tools that are provided by the practitioner for aiding the consumer in the interpretation process. Service, software, hardware must be combined in such a way so that the information is in a highly tangible and accessible form. This particular phase of the information flow is a function of educational processes [36, 51].

Recreation education in the past has been confined to the informal processes. There has been little effort to incorporate recreation education into the primary and secondary curricula in the United States. The only aspect of recreation that have been instrumental in the school curricula is health and physical education. The other areas of recreation have been relegated to informal processes. Informal recreation education activities have centered on the outdoor experience. There is a need for synthesis of formal and informal processes, especially in industrial societies where a leisure ethic is replacing the work ethnic [37, 38]. Leisure can be a positive force that can help the individual consumer develop a more meaningful life [52].

CONSUMER

It is the function of the consumer to effectively and efficiently utilize information provided by the practitioner to modify his behavior in such a way as to achieve change in his life, thereby, achieving change in society. Consumer action is a never ending pursuit to satisfy needs in different situations [53]. The situation is a stimulator and inhibitor of need modification. Another concern

of the practitioner is the ability of the consumer to effectively and efficiently utilize the information provided. As a result, information should be provided in a flexible form to satisfy different situations and ability levels.

The usefulness of information to the consumer is a direct indicator of its quality. Negative reactions are also a feedback indicator of the type of changes that need to be made to increase its usefulness. Implicit in feedback about change must be questions related to an individual's ability to identify and use the media resources. Feedback can provide the necessary link to help isolate problem points to improve information flow.

Information collection and processing are a modification or refinement of an information product through a series of steps in a flow model. Problems usually occur when there is a missing element or link that does not allow for the effective modification or refinement into a useful form [54, 55]. There are some shorter routes in the flow model but this only usually occurs when the information is already in a usable form. Some organizational institutions try to bypass the refinement process and advance directly to a information dissemination and utilization campaign. This often causes problems in interpretation because there is not usually enough information provided in a usable form on which to make a decision. (See Figure 2.)

A problem in recreation has been that not enough emphasis has been placed on the applied research and development phases [56]. As a result, the information has not been refined into an acceptable form to bridge the gap between theory and practice. Linkage mechanisms between the consumer and practitioner have been stronger, especially with the advent of the consumer movement [57]. In the past few years, this movement has increased awareness of the problems and has stimulated new methods and techniques to improve this information exchange interface. Linkages in the flow model are not an either/or process. There are strengths and weaknesses at any of the linkage points. The weakest link in recreation is the applied research and development phase. Some of the elements weakening this linkage point have been:

1. a growing emphasis on theory or practice,
2. an emphasis upon the preservation instead of the utilization of recreation resources for future generations, and
3. a difficulty in dealing with the human behavior aspect of applied research.

These problems and others are directly related to the fact that

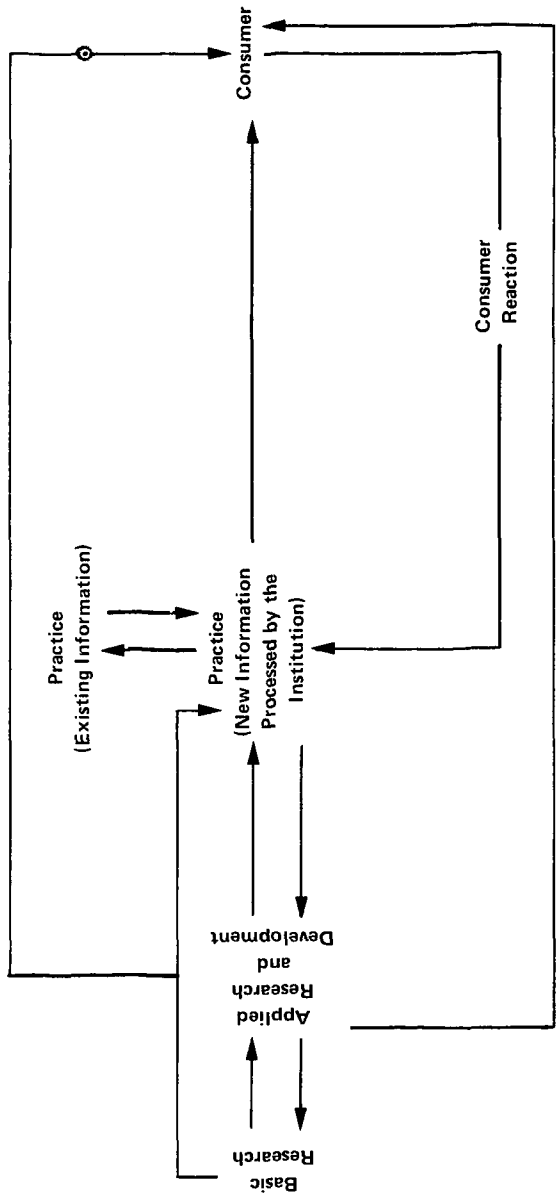

Figure 2. Information collection and processing channels.

recreation is in the process of redefining its traditional constructs to become a modern science [58, 59]. As a result, much of the effort has been devoted to developing philosophical guidelines to satisfy these theoretical demands.

There has been an increase in the amount of leisure time and ways to spend it. As a result, there has been an increased demand for recreation services and facilities. Therefore, the practitioner has responded by developing systems to satisfy these demands. When there is a synthesis between theory and practice through a strong applied research and development program, there will be a reduction in the cultural gap from a puritan work ethic toward a leisure ethic. Then there will be a realization of how to utilize recreational resources to benefit the individual and the society. In content areas such as education and marketing, where there has been much emphasis placed on the applied research and development aspects of human behavior, strides have been made to strengthen the linkages between theory and practice. This emphasis evolves as the discipline matures and the cultural lag has been reduced. Figure 3 is a program outline offered to strengthen the applied research and development phases of recreation to reduce the gap between theory and practice.

Information Dissemination and Utilization

The function of the information dissemination and utilization processes are to isolate information channels and delivery systems in which a message will obtain maximum exposure and develop strategies for maximizing information use at the contact point [60-62]. This phase of the discussion will focus on those aspects of information channels and contact points as they influence each component in the information flow process.

BASIC RESEARCH

There are two important information channels in basic recreation research: the university and the scientific association. In addition, basic research supported by business and industry and government and its branch agencies have also contributed significantly to theoretical research, even though their primary domain is applied research and development.

Recreational institutions of higher education are diverse. These institutions service three basic functions: teaching, research, and service. Differences among institutions are the emphasis placed on each of these activities.

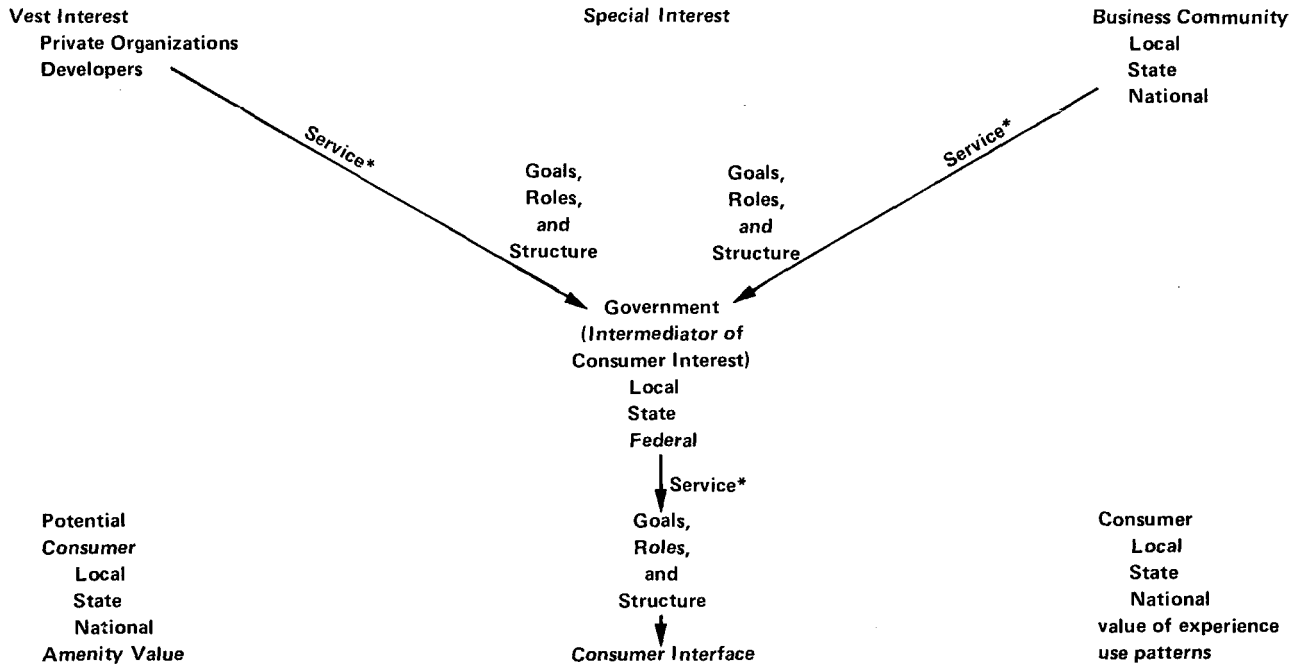

Figure 3. Applied research and development model for developing continuity.

The societial role of higher education in the past has been problem solving and expertise [63, 64]. Institutions of higher education are places where ideas can be exchanged freely and new methods and procedures tried. Research thrives in this atmosphere. As a result, higher education has been viewed as a source of innovative expertise for the society. Both the basic and applied sectors of the higher education community play a critical role in maintaining the culture and generation of new ideas.

There are new pressures from the society to bring higher education resources and talents to bear upon its problems [64-66]. What is being suggested is that higher education move from a supportive position of suggesting new ideas to a role of helping implement these ideas in a practical way to solve society's problem [67]. The higher education community in the past has not been concerned with society's problems. Administration and the faculty have chosen to emphasize their teaching and research functions with little thought given to their service role [32, 68]. One of the notable deviations from this policy has been the agricultural-extension model. This has been an effort to get the larger agricultural society to adopt practices developed by the research phase of the university's agricultural department. This represents an information flow channel from basic research to the consumer. In this situation the university has served as an innovator and as an agent of change within the society successfully. Where the university's administration and faculty have opened interfaces with the larger society many productive relationships have developed and higher education's role as a social institution has been extended [69]. Resources of the university must be mobilized in such a form that the positive aspects of the university are readily available to the larger society.

Scientific societies have three basic functions: communication, organizational responsibilities, and influencing policy formation [70]. Both basic and applied scientists have a motivation to communicate their ideas to their counterparts [71-73]. As a result, the majority of the responsibility of most societies is maintenance of a journal or other mechanisms such as a convention to permit formal and informal communication of current research and program activities. These associations are able to form significant bridges between different universities, university and non-university researchers, different specialities, and even between basic and applied researchers. An institutional role of these associations is a forum for the communication of new knowledge among a variety of institutions in society [74]. These associations like other social

institutions are inhibited and stimulated by the norms imposed by its members. The associations are conservative, protective, and exclusive by nature. They are designed to preserve the established order in a specialty and to resist innovation when it threatens this order [75-77]. These associations are able to maintain their position through a monopoly on editorial review and the effective control of research policy through funding sources [78]. A result of this organizational structure has been a proliferation of such associations [79]. These new associations have found it difficult to build their membership because they do not have prestige of the more established associations. The communication network of the associations is working well in conveying information among basic researchers. It has been less effective in forming linkages between research and practice or between research, basic and applied. Traditionally these associations have been found together by university based scientists affirming and reinforcing the norms and values of the basic research profession [80]. The new associations may become important linkage roles between research and practice or between research, basic and applied. This may be inhibited by the new associations effort to gain status by only working in basic research circles.

The organizational structure of the scientific associations is also important because it serves as a point of content and social identity outside their own institution, and provides an additional forum for the exchange of ideas [74, 76, 81, 82]. The applied researcher and the practitioner usually maintain membership in the scientific associations to keep informed of current developments in a content. Basic researchers at the university have socialized these professionals into this type of association [83, 84]. These basic researcher usually maintain organizational affiliations with the professional associations to keep abreast of applied developments in the content. These reciprocal, organizational relationships serve a linkage role between research and practice or between research, basic and applied.

The third important function of the scientific associations is the influencing of the other social institutions by providing the necessary expertise on which to make decisions [85-87]. This function is most notably linked to the funding of basic research. Research is not a self supporting activity. It depends largely upon the enlightenment of the public expressing an interest in basic research through their governmental representatives. Government in many cases dictates what type of research is needed and provides the money to support such research. The government acting

through the representative system of government is a channel of communication that can help make basic research responsive to the needs of the consumer directly. Private foundations and other funding sources also tend to dictate the emphasis of research activity to the scientific community. The danger here is that the funding sources are dictating the emphasis of the research and some theoretical perspective may be lost to solve the problems [88]. Therefore, these associations through their lobbying power should use their influence in the formation of policy to obtain certain research perspectives.

APPLIED RESEARCH AND DEVELOPMENT

Business and industry and government are the important information channels in this phase. As emphasized in the previous section, the university and the associations are more theoretically oriented and business and industry and government are more practically oriented. There are no hard lines of demarcation.

Business and industry associated with recreation has traditionally been oriented toward health and physical education. As society becomes more leisure oriented, business and industry have responded by providing more goods and services that are supportive of a leisure economy. In the past, business and industry have been associated more with the practitioner than with theoretical research. This has primarily been because there has not been a body of theory developed upon which to guide their development. The practitioner also represents a direct link to consumer revenues so they have been more responsive to the needs of this group. As the demand for recreational goods and services increases it is becoming more apparent that the needs of the consumer must be more fully served and recreational theory has some suggestions. Another problem with the development of business and industry has been public supported recreation. Government has been instrumental in the development of recreation areas and facilities and has usually developed the necessary goods and services to support these recreation areas. Because of the practical emphasis placed on the management of recreation areas, and facilities a large portion of governmental agency's research has focused on applied research. The primary focus of this research has been on facility development and maintenance. With the increasing pressure upon these recreation areas, there must be additional research, especially at the applied level, to study the people-natural resource interface. There has also

been a void in social research in determining consumer preferences and what types of goods and services should be provided to satisfy these needs. Most of the government's efforts have been a response to a crisis situation. There needs to be a cohesive theory developed to guide future action.

PRACTITIONER

The practitioner is important because he has a direct influence upon consumer information channels. There has been much discussion about the manipulation of the consumers by the practitioner [89]. With the greater emphasis upon consumer rights, the practitioner will not have as much of a monopoly upon these information channels, thereby, reducing the risk of the consumers being manipulated. The practitioner himself is usually influenced by information he receives from the university, the professional association, business and industry, etc. Of these information channels, the professional association has the greatest influence [7, 46]. The primary difference between the scientific and professional association is a matter of orientation. Where the primary function of the research oriented association is communication, the primary function of the professional organization is application of the information to consumer activities. There are only a few dominant professional recreation associations. These associations act to safeguard and advance the profession [90]. Since there are so few organizations, they act as a stabilizing force to standardized service. Their influence is absolute because there are no competing associations. The associations are characterized by being oriented toward:

1. the application of practical knowledge,
2. community service instead of individual self-interest, and
3. a high standard of work ethic.

The basic function of these organizations are:

1. fellowship and relaxation,
2. preservation and advancement of the special social role represented by the majority of the members,
3. information exchange with regard to personal concerns of members, new scientific knowledge, and new mechanisms of service,
4. community service,
5. advancement of members' prestige,
6. maintenance of mechanism to reduce exploitation by business and industry and government, and
7. development and enforcement of a work ethic [33, 46, 92].

Even though these seven roles are the stated purposes of the national organization, local chapters usually only emphasize two or three. These local chapters are the work units of these Associations. National influence for standardization of programs is usually exerted through such mechanisms as officers and meetings. These same mechanisms are devices that help associations become more responsive to its members.

CONSUMER

The focus of most information channels is the consumer, except for those channels that relate to maintenance of a particular link in the information model. Of the four basic information channels, that is, the university, scientific or professional associations, business and industry, and government, the most important is the professional associations and business and industry. This does not suggest that the university and the government are not significantly involved in consumer affairs. It only suggests that the information channels that directly interface with the consumer are the practitioner and business and industry. The primary function of the university at the consumer interface is expertise and the function of government is the protection of consumer rights. The function of the practitioner and business and industry is to directly supply the consumer with the goods and services desired.

It is the consumer's function to use the information supplied to rationally select products and services. In the past few years, the consumer movement has taken the form of consumer education which has increased the awareness about products and services [93]. The primary emphasis of this movement has been upon increasing the amount of rationality in the selection of products and services, thereby, making for a healthier economy because of wiser decisions.

A primary characteristic of the consumer subsystem is a lack of consistence in their behavior. Most individuals act on an independent basis. Most consumers lack training and/or the resources to rationally and effectively select products and services [94]. The danger in this type of system is that the practitioner or business and industry may have such an influence upon the consumer that he can be manipulated or exploited [95]. Consumers may be at the mercy of forces emanating from the practical world such as advertising campaigns, monopolies, etc. Research has shown that a primary influence on the consumer's decision is the opinion leader, that is, the individual in the social group that sets the

norms [17, 21, 96, 97]. An opinion leader may or may not be an expert in consumer affairs. Therefore, the informal systems established through social processes and the variability in behavior act as barriers to protect consumers from gross exploitation.

Within the last ten years the consumer has become more aware of the potentiality of being exploited. Many have organized themselves into a lobbying force such as the Trade Unions and Labor Union Movements of previous generations [93, 98]. These organizations gained a foot hold during the 60's. With the shortage in supply of some products and services and inflation these organizations have gained wide support from the general population. These consumer organizations have helped equalize the consumer's power. These organizations have sponsored scientific research so that the consumer can be informed about the product and service quality. Some consumer organizations have been able to enter into special contracts with businesses and industries to obtain preferred quality and reduced costs. Product and service accountability are a built-in feature of these contracts. Consumers have seldom if ever previously been able to obtain a contract of this type. This movement has also been aided by the rise of several public interest groups. The most notable among these is the Consumers Union, a nonprofit corporation established in the mid 1930's for providing objective information on product service and quality. This type of information has added an element of accountability to consumer behavior, because he is more responsive to product and service quality. This type of behavior rewards the business and industry that emphasizes quality [99].

Philanthropic organizations and vested interest groups have also had an impact upon the consumer information channels. Their primary influence has been supporting research, providing public information programs, and lobbying [100, 101]. Some of these organizations have been directly involved in providing services to the consumer, especially those of a medical or legal nature. An example of this type of action is the American Civil Liberties Union which has successfully represented the legal interest of individuals who have not been able to afford a quality service. Some of these vested interest groups are not entirely consumer oriented. They represent a special interest within society and are interested in influencing the general public and legislation for some specific objective. They do however represent information sources and another influence to counteract indoctrination.

Another important check and balance of this movement is the ability of consumers to elect officials at the local, state, and

national levels that are responsive to their needs [85, 86]. This is especially true at the national level because it is a responsibility of Congress to defend the consumer and be directly responsive to his needs. The president and the executive branch of the government also have a responsibility to protect the consumer, especially in the execution of legislative mandates [56, 102], such as the establishment of minimum standards for product quality. A third dimension of the check and balance system in the national government is the judicial system. It is the function of this system to interpret legislation in the light of the constitutional protection of individual rights. This is important because it represents a force in the check and balance system that is completely independent of pressure and influence from special interests. A goal of the federal government has been monitoring products and services and providing goods and services where practitioners and business and industry have not been able to do an effective job. Some examples of this type of actions are the postal service, auto safety, care for the aged and mental health. Government has also been able to bring pressure for change through contracts, federal spending, etc. A problem with government intervention in the consumer movement is that there has not been a concerted effort to coordinate actions. State and local governments have also had an instrumental role in the development of the consumer movement through providing supportive legislation and action programs. In fact, much of the stimulation for federal programs has come from the local and state levels.

The practitioner and his professional association have helped set standards of service through the establishing of rigorous certification procedures [46, 99]. Business and industry have also developed information channels to help consumers in the selection of goods and services. Many businesses and industries have established elaborate information channels with the consumer through their marketing and complaint divisions. The business community also has helped establish the Better Business Bureau to help as an intermediator with the consumer to ensure quality products and services. Both the practitioner and the representative of business and industry realize that their existence depends upon support from the consumer. The consumer himself is the most important influence in obtaining quality products and services. Through wise selection he can support those who are providing the quality and reinforce their position within the society.

Figure 4 is a summary of the important channels by each component in information flow [103, 104]. It is important to note

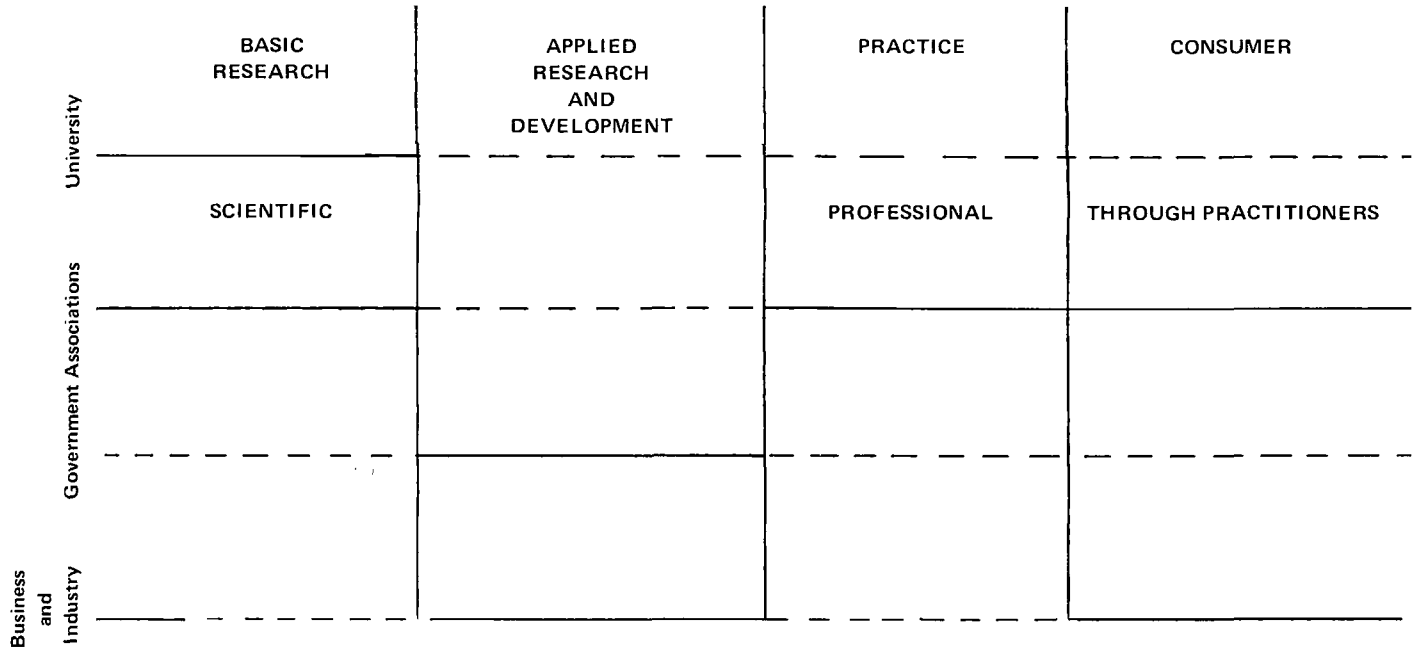

Figure 4. Important information channels among components of macro system.

in the figure that there are not any major continuous contact points among the components in the information flow system, except for the information channel related to associations and the components of practice and the consumer. Contact points are essential ingredients for the systematic flow of information dissemination and utilization [105-107]. Continuous contact points are the focus because they represent the points of linkage for the systematic flow of information [108].

INFORMATION CONTACT POINTS

There are two important components in a discussion about contact points:

1. is the isolation of information channels that provide continuity to information flow and
2. is the isolating of integrating forces at the contact points that increase the use of the information [109-111].

Contact points act as the management element that inhibit and stimulate information dissemination and utilization [35, 112]. These management control elements must be present in the proper mix to insure the correct rate of information flow in terms of timing and accessibility for the user.

CONTACT POINT CONTINUITY

Three important contact points that help in the development of continuity are:

1. a professional school which helps bridge the gap between basic research and practitioners,
2. business and industry which helps bridge the gap between applied research and development and consumers, and
3. service organizations which bridge the gap between basic research and practitioners or applied research and development and consumers [35, 112].

Two of these contact points focus on the consumer because this is the point of information dissemination and utilization.

Professional schools serve as the bridge between basic research and practitioners in several ways:

1. it provides for professional renewal and continuous recruitment, training, and certification of new members,
2. it provides a home base for specialists and applied researchers,

3. it furnishes much of the new knowledge content for professional journals, and
4. it provides a large portion of the formal and informal leadership for the profession [7, 33, 90].

The primary weakness of the professional school is that most of the individuals are oriented toward academic careers and not toward a continuing education function. As a result of this academic orientation these individuals do not usually have a concept of the consumer needs, problems, or even an interest or concern for this interface [59]. The professional school is usually a marginal part of the university's structure and is usually set apart from the main stream of new scientific thought.

Within a professional organization, there is usually a diapole between members of the professional school and practitioners because those who represent the professional school are usually interested in upgrading the standards of the profession, and such efforts are usually contrary to the personal interest of the practitioner [113]. Organizational sanctions are an important element in certification and upgrading the profession. The more prestigious the organization, the more powerful the organizational sanction. Such certification may ensure a standard quality of service or at least an equal opportunity to obtain good service but may also build barriers between practitioners and consumers. The bureaucratic procedures established may create such problems as setting limits on service and preventing effective feedback.

Professional associations have grown in number and social influence especially in the last twenty years. The effect has been usually an improvement in service. Professional schools as they interact with the professional associations represent a special interest which may encroach on the rights of others and creates an unfair distribution of wealth and power in the society [92]. Professional ethics is a factor that may limit this type of action. Until the consumer groups become more influential and equalize this balance of wealth and power the professional schools, working through the professional associations, may not adequately live up to their claims as a progressive social mechanism to benefit the consumer interest.

In professional associations there are lateral lines of communication [114]. In the interdisciplinary organizations individuals usually find themselves working side by side with individuals from other backgrounds. This permits for the effective informal transfer of information. Presently most of the professions are more rigid and

represent only a single discipline. In this situation there is less transfer of lateral information. In fact, this lateral communication in these organizations is hampered by rivalry over status and discipline orientations. These lateral channels of communication are important for two reasons:

1. because they provide communication channels within the professions and
2. because they may serve as a catalyst influencing consumer interfaces [113, 115, 116].

Diffusion is a process that can help this system become more open and viable as a source of change for increasing information flow at this contact point [117].

The primary impact of professionals upon consumer has been the scarcity of goods and services they provide. Upgrading their service roles has resulted in limitations on membership which has resulted in higher service rates and heavier case loads for practitioners. This has occurred where demands for the products and services were high and related to a basic need. To fulfill this demand some professional responsibilities have been delegated to para-professionals. This has alleviated much of the problem. Professional schools or the institutions within the university that represent an applied research orientation can help refine information and serve as the point of dissemination to bridge the gap between research and practice.

A second contact points that represent continuity in information dissemination and utilization is business and industry. Business and industry has helped bridge the gap between applied research and development and consumers. Business and industry has been responsive to consumer needs in improving products and services because of competition for consumers dollars [87, 118]. There has been a consistent improvement in the quality of products and services provided by industry through the application of sound technology.

Consumers demands constitute the economic basis of the U.S. society. Competition is not always related to product quality. Advertising, packaging, financing, etc. have compounded this issue by making comparisons on the basis of quality harder. In the long run, quality has been the factor that has determined success in the open market place. As a result, the philosophy of most businesses and industries has been the development of innovative products and services, especially in the applied research and development section of the organization [119, 120]. The applied research and

development phase of business and industry is usually removed from the mainstream of research of the university and the professional association because of their orientation toward product quality and improvement. This does not suggest that the applied research and development in business and industry is not based upon theory. Researchers have received their theoretical training from the university. Even though the primary orientations is product quality and improvement, these researchers have made significant contributions to theory.

One aspect of the consumer movement that has been underemphasized is maintenance and repair. Making the wise choice includes not only product selection but also information that relates to maintenance and care of a product after it is purchased. Those businesses and industries that have been most successful in terms of competition have been those that have combined product quality and improvement with necessary service to maintain their product. The gap between applied research and development and the consumer has been and will continue to be bridged by the competition among business and industry to satisfy consumer demands. Wise buying by the consumer has in the long run led to improvements in product quality and services. This particular interface is a result of applied research and development of business and industry being responsive to the consumer demands, especially in product quality and service.

The third critical element that can provide for continuous flow and utilization of information particularly at the consumer interface, is the service organization. Service organizations are not usually a part of the interacting social institutions. They are artificial organizational structures that have been created to serve a common need. Service organizations provide the basis for improving the consumer service through the reduction of costs because the pooling of routines such as clerical and accounting tasks and sharing of facilities such as rent and utilities. This should result in faster, more reliable, more frequent, less expensive products and services. In some cases services organizations have exploited consumers because of a monopoly on products and services. There was little competition, therefore, no incentive to improve products and services.

Service organizations allow for the development of more complex services because it allows for specialization by job task—division of labor. As the tasks become more complex in our society it is becoming more apparent that one individual does not have the ability to handle expertly all aspects of a problem. Prerequisites of

a service organization are: 1) the need for very expensive and complex equipment and facilities, 2) the need for services by several professionals, and/or 3) the need for serving large numbers of consumers simultaneously and rapidly. Complexity of service organizations may be more apparent than real. The need for service organizations because of complexity has some times been used as a rationale for bureaucracy and poor product and service quality. Under such circumstances some sort of government surveillance would appear to be the only way to prevent abuse.

Of the consumer interfaces the service organization has the greatest potential for improving practitioner-consumer relationships. It is sometimes necessary for the service organization to assume some general control of the consumer to add or provide a more protective service. This helps the practitioner bridge the gap between himself and the consumer. This usually occurs when the individual is no longer able to function to provide basic needs for himself. Opportunities for exploitation of consumer in this particular type of system is extremely dangerous. By assuming greater and greater responsibilities of the consumers' needs, the service organization trains the consumer to be more and more dependent, less competitive to make rational choices, less able to give feedback, and less able to diagnose his own needs. Service organizations are a stabilizing force for consumer relationships, especially at the practice-consumer interface. Service organizations have the capacity to help bridge the gap with the practitioner, particularly when the consumer needs help in a specialized content area to perform a task.

Professional schools, competition from business and industry, and service organizations serve as positive and negative stimuli which may provide continuity to information dissemination and utilization [26]. (See Figure 5.) This continuity is important because these information channels serve as a control mechanism. In addition to the information channels that provide continuity, it is important to understand the other integrating forces that bring about continuity at the contact points. Just as the key to information flow is continuity, the key to utilization of information are those elements that provide a linkage role at contact points that make the individual more aware [121].

INTEGRATING FORCES AT CONTACT POINTS

Once the flow of information reaches its contact points, assimilation and accommodation are the first steps to its utilization

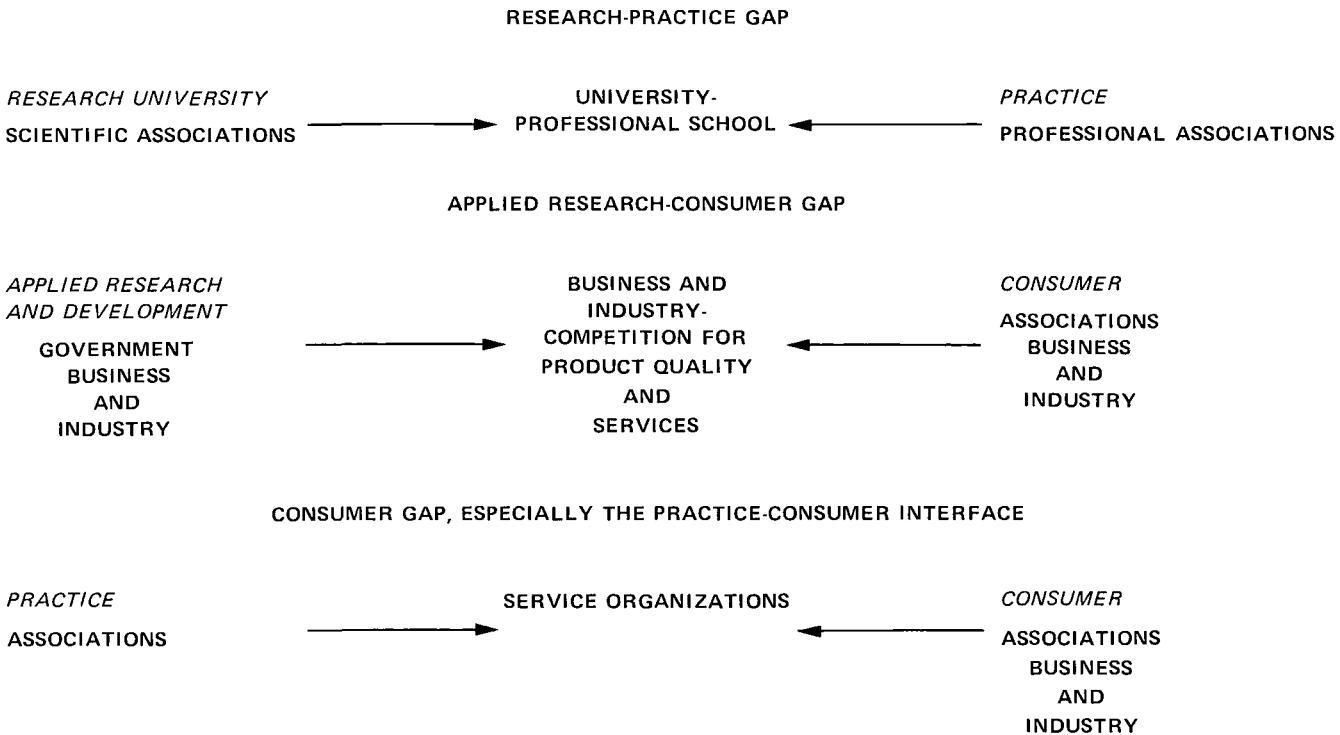

Figure 5. Secondary information channels that increase contact point continuity.

[122-124]. Assimilation is the awareness of the information opportunity and accommodation is how efficiently and effectively it is utilized. There are additional steps in the information utilization process but beyond this point many educational programs have to support a particular position and therefore lends itself to consumer exploitation. An educational program should:

1. try to make the individual more aware of the comprehensive picture and
2. educate him to how to more effectively and efficiently utilize information to make decisions that are personally satisfying [121, 125, 126].

The elements that help achieve these objectives are the linkage roles at the contact points that provide for the continuous or rhythmatic flow of information [127-129]. Information dissemination is associated with dispersion processes and utilization is associated with the concentrating of information particularly at the terminal contact point.

Factors that are associated with linking functions at the contact points are integrating forces that stimulate and inhibit information flow. A linking factor is a structural element that helps remove information blocks at the contact points and serves as a coordination device to organize information flow across a gap [130-132]. An attitude of resistence to change is a key element that must be attacked first before any barriers can be removed [77, 133]. Change cannot be indiscriminate. It must be organized around the functional streamlining of organizational operations so that the product of the change is visible [83, 134]. Linking functions can be classified as follows:

1. communication media,
2. specialized linking roles,
3. temporary linking roles and
4. permanent linking roles [135].

Communication is the vehicle of information flow and in a linking role it serves the function of by-passing barriers at the information gap [136, 137]. Use of the proper media acts to reduce resistence because if media is matched to structure and function more effective and efficient information transfer and utilization will occur [138]. It also serves to give an old message a new appearance.

Communication media are of a printed or a electronic variety. There are specialized journals and magazines to increase information flow between the research to practice gap. Such media as the newspaper serve to increase information between practice and the consumer. These are only two examples of printed media and how

it is used. Printed media is the most used vehicles for communication of ideas [139]. A reason for its success has been the cost of the media as compared to the exposure it receives. Electronic media has primarily been used for the entertainment of the general public through the sponsorship by business and industry [99]. The potential of electronic media is just beginning to be explored, especially with its exposure capability and flexibility. Electronic media has been successful in the transmitting of information because it depends on a multi-sensory experience. A primary function of both printed and electronic media is to create awareness. A shortcoming of these media has been that they have not directly involved the learner in a doing experience. Research has shown that a learning-by-doing experience is related to more effective information transfer [140]. This suggests a two-way communication media is much better than a one-way [141]. There are many who are cognitively tuned into one media so that they can assimilate large quantities of information. The majority of the population does not seem to have this ability. The primary characteristics of a media depend upon stimulating involvement of the learner through active participation that can be reinforced through his life style [49, 82].

A specialized linking role is a structural element that is a bonding force among sub-components. It helps reduce resistence by organizing structures and function along similar lines [42, 142, 143]. There are two types of specialized linking roles: conveyors and consultants. Conveyors are specialists within an organization that move from one group to another. These individuals move from one circle to another serving as communication links among subsystems. They serve a function of standardizing systems operations and help define the role of each member within the group. Consultants are specialists from outside an organization who are facilitators that act as a change agent to improve an organization's operations. The consultant, as a change agent, usually helps his client with skills and problem formation and solving and make client aware of various change strategies.

Temporary linking roles are feedback channels that have been established to fill a void in permanent communication channels. These linkage roles act as a safety value to reduce pressure, thereby, reducing resistence within the system [42, 142, 143]. The function of these linking roles is to provide communication where pressures demand additional information channels. These channels act as a catalyst to work through information blocks. A secondary function of these temporary subsystems is to establish personal contacts

that may lead to the creation of more permanent relationships through continuing linkages. Usually these temporary systems are initiated and supported by both forces such as organizations, foundations, or government. A key element to these processes is negotiation and compromise. The value of this type of an experience is sensitization.

Permanent linkage roles are institutional information channels established to permit communication among the organizational social institutions. These linkage roles provide for a point of identity that help coordinate information flow [42, 142, 143]. They act to standardize organizational procedures and reflect normative pressures of the society.

One of the most elaborate permanent communication networks for information dissemination and utilization is that of Cooperative Extension Service supported by the U.S. Department of Agriculture. This is a communication network that has all the information flow points from basic research to the consumer. Information flow in this organization is from research at the Land Grant Universities to farmers through extension agents. A unique characteristic of this organization is that there are formal linking roles between all the components in the information flow model. Another unique characteristic of this organization is that it has a grass roots orientation. Even though the primary communication channels are permanent, the organization is flexible enough to use temporary linking systems where needed. A primary function of Cooperative Extension Service has been to create awareness and know how in the farm community in production and marketing of farm products [144]. Results of this effort has been increased productivity on American farms in the past fifty years. The success to the farmer's adoption of the new technology developed at these universities has served as a landmark model of information flow. In fact, it has been so successful that there has been considerable debate about the operationalization of the agriculture model in other fields such as business, education, law, and medicine. Before such a program can be undertaken, a number of basic questions must be answered such as: What is the best combination of institutional and non-institutional roles for optimum allocation of resources and what is the best balance between public and private efforts. The extension service has been able to adapt to the changing needs of the society and has remained an important change agent that services the publics interest.

Another information dissemination and utilization system that has worked well in the past ten years has been the National

Aeronautics and Space Administration. This is a government organization that has incorporated many new features of information storage, coding, retrieval, and dissemination that goes far beyond the Cooperative Extension model. This is an information system that has been specifically designed to handle highly specialized subject matter. Their success also seems to be a function of providing permanent linking mechanisms as information channels. Another characteristic of this organization is that it has successfully operationalized a systems approach to information dissemination and utilization. The primary successes of the National Aeronautics and Space Administration have been putting a man on the moon and developing a technology that has application to many of society's problems.

Before any of these contact point strategies can be developed into a program, there are three important considerations that are hindering the development of dissemination and utilization systems in recreation:

1. the growth and development of the applied research and development information component;
2. an inadequate appreciation of the consumer as a systems component; and
3. little understanding of the importance of the inter-dependence the information flow components.

Two key elements in the development of a dissemination and utilization system are bridging the applied research and development gap and providing for those elements that develop continuity among information channels at the contact points.

Summary

The primary emphasis of this discussion will not be to review the major information presented but will be the delineation of major problems and potential solutions to information flow that are hindering the development of recreation programs. An important element that is hindering recreation programming is the applied research and development component of the information collection and processing phase. The main problem here has been the lack of a refinement of information and a resulting gap between theory and practice [145, 146]. Consequently, the information that has been transmitted to the dissemination and utilization phase has not been highly usable nor of the highest

quality. A primary problem isolated in information dissemination and utilization phase is continuity in the information channels at the contact points [145, 146]. The emphasis has been on internal communication instead of transfer of the information to the next component in the flow model. The problem has been lack of continuity because barriers have developed between the various points in the flow system such as between theoretician and practitioner and public and private interest. The need in the short run is to:

1. improve the quality of information, especially in the refinement process of the applied research and development component and
2. improve continuity in the information channels, particularly at the contact points.

The organization that may be able to achieve such a community education program is the Cooperative Extension Service. It has the most sophisticated and complete information flow system at this point in time [147, 148]. Community education in this context is the coordination of community organizations such as Schools, Recreation Departments, YMCA, YWCA, Boy Clubs, Girls Clubs, and Scouts into a comprehensive educational program for the community [149, 150]. In the long run, program improvement seems to be directly related with the university because most other organizations within society seem to be directly or indirectly associated with it [21, 22, 33, 151]. (See Figure 6.) The university can serve as a hinge from which to institute societal changes because of its position within the society. The function of the university in this context should be one of coordination and innovation [65, 152]. A primary emphasis of the university's programs should be service through research and teaching. Many individuals and institutions within society are having problems and are looking for help to solve them [153]. As a result, the university will find much support within society for a service program. A successful service program is the key to the development of a continuing education program of self-help for the society [150, 154]. Universities already have the information channel and contacts, especially Land Grant Universities through the extension service. All that is needed is the dedication to the concept of service within the society. To solve the problems that face recreation within our society, it is important to note that it will take both short and long run strategies.

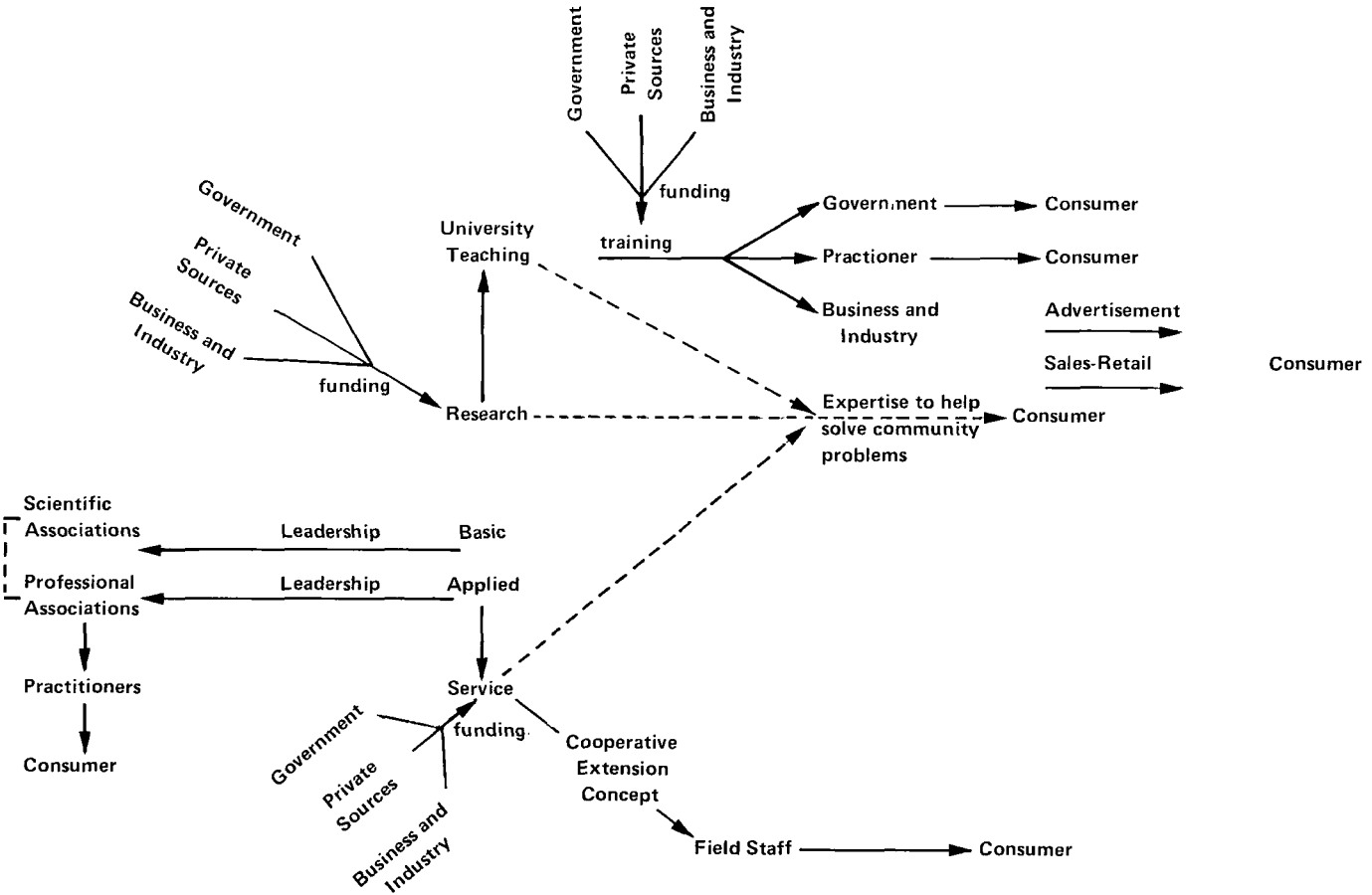

Figure 6. Summary.

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