DOCUMENT RESUME

ED 142 103 HE 009 071

AUTHOR Trow, Martin
TITLE The Creation and Support of a Research Community on Higher Education: A Report to the University Chancellor's Office.
INSTITUTION National Swedish Board of Universities and Colleges, Stockholm. Research and Development Unit.
PUB DATE 77
NOTE 17p.
AVAILABLE FROM National Swedish Board of Universities and Colleges, P.O. Box 16334, S-103 26 Stockholm, Sweden

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Administrative Policy; Bibliographies; Educational Policy; *Financial Support; Foreign Countries; *Higher Education; Institutional Research; *Organization; *Post Secondary Education As a Field of Study; *Research; *Research and Development Centers; Researchers; Research Opportunities; Research Projects; Statistical Studies
IDENTIFIERS Sponsored Research; *Sweden

ABSTRACT

Several matters are considered as they relate to the possibility of establishing a research community on higher education in Sweden: the characteristics of such a community and its importance to the future of education; the organization of applied research in higher education, including statistical services, special studies, and policy analysis; commissioned research; the logistics of a research unit; and alternative means of support for a research community. A bibliography is included. (MSE)

COMPLETED PROJECT 1977:3

PROJECT TITLE: The Creation and Support of a Research Community on Higher Education; A Report to the University Chancellor's Office[1]

SCIENTIFIC LEADER: Martin Trow, professor of Sociology
Graduate School of Public Policy, University of California, Berkeley, U.S.A.

Introduction

The invitation by the University Chancellor's Office to examine the research development efforts and capabilities in Swedish higher education afforded me a welcome opportunity to become better acquainted with the Swedish university system. In my visits, readings and conversations, I found many problems and issues -- of student access, the curriculum, the academic career, institutional government and administration, the links between teaching and research, the structure of the department -- which could be profitably studied more deeply and systematically than it appears they have been. But the possibility of carrying on these investigations is limited by resources, both material and human. It is my impression that the more serious constraint on research into higher education in the Swedish context is the number of researchers who are qualified and motivated to do such studies, and even more importantly, in their relationships with one another and with their area of study. It is my impression that studies in higher education in Sweden are currently pursued by a relatively small number of senior academic people and their graduate students. These studies are selected largely in response to personal interests of the investigator, rather than out of a broader assessment of where the most important or pressing problems may lie. These investigations are scattered across eight or nine different disciplines -- notably political science, sociology, economics, business administration, psychology, education, history and geography -- in Sweden's six universities.

---

1) This paper was written in the autumn of 1975, when Martin Trow was a guest professor at Stockholm university. It was then circulated in the Chancellor's Office and among researchers and planners at the Swedish universities. It is now printed in this series to reach a wider group of people.

There is, so far as I can see, no one major center for studies in higher education in any one department or institute or university. Moreover, it is also my impression that the various scholars and scientists who do conduct studies in higher education do not have close professional or scholarly ties to one another (apart from the professor and his students in a given department or institute). In a word, I do not have a sense that the social scientists who conduct studies into Swedish higher education constitute a research community.

What is a research community?

A research community is more than an aggregate of scholars who happen to be investigating the same broad phenomenon, problem or institution. A research community has at least these characteristics:

1. Its members interact with one another on a regular basis in relation to their shared professional and research interest. This means that they see one another, write and speak to one another, exchange ideas and memoranda, drafts of papers in process and offprints of published work.

2. One result of this pattern of interaction and communication is that there develops within the research community a broadly shared conception of the nature of its problem area. In higher education, this could be a shared understanding of the chief characteristics of Swedish higher education, its direction of development, and the major problems that arise from the development of these institutions and their relation to the larger society. This does not mean that all members of the research community will have identical views on these broad issues; they will differ, particularly between academic disciplines, and also in the degree of emphasis and attention that people give to one or another aspect of the system. In addition, there may be differences among members about what the important characteristics and developments of the system are, and these will be the focus of discussions and controversy. But over time, a research community tends to develop a broadly shared conception of the institution it is addressing.

3. A number of consequences flow from the development of a research community. One is that the work of its members becomes increasingly cumulative. Research tends to build on the work of other people in the community, even those in other disciplines. This is partly because the results are disseminated. But disseminating papers is not enough to ensure that results will inform future work by other people. Research has to be read and discussed within a shared framework of ideas if it is to have consequences for subsequent work; it has to become part of a common pool of knowledge; the findings have to be "translated" across disciplinary boundaries and shown to be relevant to work in other disciplines. This happens, when and if it happens, through discussions within the research community.

4. Another important gain from the existence of a research community is its tendency to map its field of study, identifying areas where knowledge exists and also where knowledge is scanty. What this does is to help guide the research energies of its members toward problems of interest and importance to all its members, that is, to strategic problems whose "answers" will have large effects. That can contribute very greatly to the efficiency of research efforts: instead of problems being selected haphazardly by individuals, or by the funding authorities (who may only think they know what the important problems are), the research community can both identify these problems and help motivate its members to work on them.

5. The members of a research community have a sense of identification with the community and with its other members. This is a part of the definition of a research community and also a product of its existence. That sense of identification with a group of colleagues in other fields and universities has important consequences for their professional relationships, and for the character and quality of the research that is done. As a result of these feelings of identification,

a. it members give one another support and encouragement in their work;

b, they provide informed and sympathetic criticism of each others work, one of the most valuable services that colleagues can perform for one another;

c. they provide an invaluable informal network of communication about new books, ideas and findings relative to higher education done by people outside the research community or abroad;

d. the identification with the research community constrains and limits the competitiveness that naturally develops among scholars working in the same problem area. This competitiveness is a natural and inevitable aspect of scholarly life, but in extreme forms it can work against the creation of knowledge and understanding by confining communication to the circulation of published reports. The research community cannot eradicate competitiveness, but it does provide mechanisms and channels for cooperation to balance the competition among individuals;

e. the identification that scholars develop with the research community tends to stabilize their research interests in that area, by tying their interests to a continuing network of personal and professional relationships. This stability of research interests in turn strengthens the research community by rooting it in a network of stable and longlasting relationships. The research done is likely to be better where such interests are more stable: for one thing, people are able to build on their own past work as well as on that of others. It is for example desireable to encourage graduate students to do their doctoral theses in some aspect of higher education. But it is perhaps equally important to retain the interest of such people, (or

at least a good proportion of them) in the area of higher education even after they have gained their doctorate. And this can be done more effectively if they can be made part of a research community to which they continue to belong even after passing from under the tutelage and influence of a professor who supervised their doctoral dissertation.

A strong research community not only retains the interests of people in a problem area, but also recruits research people to the problem area. My impression is that the problems associated with the substantial reforms embodied in the U68 legislation, those arising from the somewhat unexpected decline in enrollment rates in Swedish universities, and those emerging as unanticipated effects of earlier reforms, altogether call for a level of research activity greater than can be sustained by the number of scholars and researchers currently qualified and interested in the area. Thus I am suggesting that the development of a research community in Swedish higher education would increase the numbers of researchers and also strengthen the quality of their relationships and interactions. But administrative authorities who want research done in higher education often do not think about the character of the research community which will be doing that work, but merely provide research funds and wait for people to come forward to do the desired studies. Often those people are not there; or if they are, they may not be qualified by training or experience to do the studies. Or those people may in fact carry out the studies, but in ways that fit their training rather than the requirements of the research problem.

I am suggesting that administrative agencies that want research done on problems of higher education need to pay as much attention to the research community in the problem area as they do to any given research study they want carried out. The consequences of <u>not</u> attending to the strength of the research community are several:

1. There may simply not be enough individuals qualified to do the needed research.

2. If this is the case, then other less qualified people will do the studies. But this in turn may lead to poor research, and even to faulty administrative decisions and bad policies. It may also lead the authorities to lose their confidence that any research in the area could be useful to them in making decisions and policies in higher education.

3. There may be a small number of well-qualified social scientists who are prepared to do research on problems in higher education. The administrative authorities may in fact overburden this small number of people with research commitments. This in turn may have a number of consequences. It may convert these able people from researchers into research administrators, with the consequent loss to the intellectual quality of their work. Second, it may reduce their ability to properly train and supervise the next generation of researchers. The problem of overload and distraction is a very serious problem for senior research people in every field and in almost every society. But I suggest that it is greater where the research community in that area is weak and where administrative authorities are obliged to place an inordinate burden of responsibility on the shoulders of relatively few senior people.

In short, administrative authorities who want better research in their area of decision-making should be deeply concerned with the size and quality of the research community in that area. For it is the research community that will determine the quality of the knowledge on which future administrative decisions and policies will be based, and that is more important than the results of any single study.

I would like to discuss briefly two ways in which the University Chancellor's Office can strengthen the research community in Swedish higher education. First is through the creation of one or more "research units," centers or institutes, which would help organize and focus the resources of the academic community on problems of higher education. The second is a set of suggestions regarding how the UKA, conceived of as an initiating, funding and coordinating body, might help development of a research community without creating one or more distinct institutes for research in higher education.

On the organization of applied research in higher education

Modern organizations need information if they are to function efficiently and effectively. Universities are no exception, and increasingly universities and university systems are strengthening their capacities to gather and to apply relevant information in the decision making process both about their own operations and their relation to their environment.

These "information-gathering" capacities can be organized in a variety of ways. The central issue lies in the relationship between the research unit and the authorities to whom it is supplying information and/or advice. A decision-making authority (hereafter referred to as the "authority") may be a rector, president, or vice chancellor of a university; the president of a university system; a governor of a state, a minister of higher education or university Chancellor, or any person or body who can make authoritative policy for a university or a system of higher education.

This section will describe different ways in which "information units" can be organized, and will then explore some further problems that arise in the relations between such units and the "authorities" that they serve.

The chief variable in the relationship of such units to "authorities" is the degree of discretion possessed by the unit, its freedom to initiate research, or to modify and extend the research initiated by others. Four forms of such organization are briefly sketched below, moving from less to more discretion and research autonomy.

The statistical office: This kind of unit has the responsibility to gather recurrent information about the institution or its environment, and to prepare such information in ways that will be useful to other administrative branches, and especially to those who are making policy. In American universities a "registrar" is an example of this kind of office. Such an office keeps records on the students who are enrolled, and a good part of its work is to keep the individual records of students accurate and up-to-date. But it also aggregates information in those records to produce statistics: on current enrollments, both overall and by school and department; on academic grades, credits earned and so forth. These records contribute in obvious ways to making decisions regarding support levels, staffing, and so forth.

To a considerable degree, such a unit gathers routine information recurrently. The information may well be no more than the "traditional" kind of data that the unit was organized to gather. But over time the institutions authorities may well ask the unit to gather new kinds of data systematically, or to undertake special analyses of the data recurrently gathered. In so far as the unit does this on a regular basis it tends to become a "service unit."

The service unit: As the name implies a service unit undertakes special studies at the request of its authority. It may do this using the data recurrently gathered by the statistical unit, which may continue to be a part of the work of the service unit. For example, an authority may ask its service unit to produce a report on the level of qualifications of entering students over a ten-year period; or to compare the qualifications of students entering different fields of study. A common request is to analyze rates of attrition over time, or in different subjects, or among students from different social backgrounds.

An important threshold is crossed when such units are expected to be able to gather new data, and not only rely on information recurrently and routinely gathered by its statistical unit. This expectation assumes that the unit includes not only the capacity to analyze data, but also to design procedures for gathering data -- for example, through survey methods. Very often a unit that is able to conduct simple analyses will also undertake to gether fresh data without possessing the research skills required -- in which case it develops a succession of badly designed "surveys" gathering large masses of new data of doubtful quality and validity. Alternatively, such a unit may choose to commission studies designed to supplement its own data gathering capacity. Where the unit has the resources and the will, it may begin to recruit more qualified research workers on to its staff, and this enhanced capability itself exerts pressures, both on the unit and its authority, to begin to exercise its own initiative in designing studies. Commonly, with these enhanced capacities, it begins to "redefine" the problems presented to it by its authority, and to design studies that are somewhat different from those envisioned by its authority. In so far as it gains resources, staff and permission to do this, it moves towards a different status and character, and becomes a "research unit."

A research unit: A research unit may perform the functions of a service unit, just as a service unit may also gather recurrent data and perform the more routine tasks of a statistical unit. But the unique characteristic of a "research unit" is that it has the resources and authority to initiate studies that are broadly directed toward problems or questions that its authority is facing -- even when the authority itself has not commissioned such studies. Beginning by "redefining" problems presented to it, it moves on toward initiating "supplementary studies" around the original one, until eventually it is using at least part of its resources to initiate studies and areas that its authority may not yet see as relevant. A fully mature research unit may spend a substantial part of its resources trying to see where the institutions' "real" problems lie, and developing studies and reports which illuminate a problem area, and which contribute to policy-making in broader ways than do the narrower problem-focused studies of a service unit. For example, such a research unit may not merely study gross attrition rates, but may try to explore the underlying causes of attrition, and distinguish between student attrition that reflects student failures in a course, and attrition that represented their successful completion of studies (as they envision success) even where that does not result in an earned degree or certificate. Or the research unit may follow such "drop-outs" to see whether they enter another course or another institution of higher education, or use their studies in their work careers. The aim is to interpret the findings in ways that shed light on the phenomenon, and thus to contribute a measure of wisdom and not merely facts to the decision making process.

Such units, as I have suggested, must have the resources and personnel for this task. But equally they must possess a higher measure of trust from their authority. That is always implicit in a delegation of authority, no less in research than in practice. A research unit is often conducting studies that exceed the technical competence of its authority to judge or to supervise. It uses large resources on its own initiative, and some of its studies may not prove to be useful to its authority -- that is inherent in its relative autonomy. On the other hand, its reports (or at least some of them) will almost certainly be more useful to its authority than any studies that they may have commissioned on their own. That happens as a consequence of the unit's professional competence, expertise, and growing familiarity with the institution that it studies and its problems. But equally important, the studies produced by such a unit may result in findings that the authority does not want to hear. This is possible in studies commissioned by the authority as well, but it is more likely, the more initiative the research unit has. A research unit may not only produce awkward findings, but may also raise awkward questions for investigation, questions that the authority itself may not raise on its own. That is why such a unit must have the confidence of its authority, and must demonstrate that it serves the interests of that authority even when it produces awkward findings.

One very serious problem -- and indeed a moral problem for its staff -- arises when the interests of the authority are seen to conflict with those of the people being studied -- the students and teachers in the case of education. Some members of a research staff may come to identify more with the subjects of their studies than with their authority. This may affect the way they design their research or interpret their data. It may even affect the confidential relationship between the unit and its authority. For this reason, among others, many authorities forego the potential gains, in the form of fuller knowledge and advice that such a unit can develop, if it perceives the risks to its effectiveness as threatened by a unit which it cannot supervise very closely.

Nevertheless, the complex workings of modern universities, the great demands made on them by society and the economy, their large costs and rapid rate of change, all call for a high order of knowledge if policies that bear on them are to be successful. An authority may well feel the gain in the quality of knowledge, and in the advice based on such knowledge, outweighs those risks. Where it does, and where it seeks not just knowledge but advice, the research unit may begin to develop increasingly comprehensive studies that encompass a broader range of factors that bear on the policies that its authority is making. In so far as it begins to design its studies towards the development of advice rather than merely information, the "research unit" is on the way to becoming a "unit for policy analysis."

The policy analysis unit: A unit for policy analysis is in the business of providing advice, based on and supported by data and information, on issues that face its authority. The major part of that advisory function lies in helping its authority to perceive the nature of the policy issues, and in helping its authority to define and choose among the alternatives available for dealing with those issues. The studies that a "research unit" conducts may well contain implicit recommendations in its findings; a "policy analysis unit" makes those recommendations explicit, and shows how they are linked to its findings. Indeed, its product is recommendations based on data, rather than "research findings." But there is another difference: a research unit ordinarly perceives itself as adding information to a decision-making process that involves factors that the research unit does not include in its own research: it is contributing the data or information to a process that must necessarily take into account other kinds of factors. Typically, a research unit produces findings on the educational or organizational or social implications of some suggested reform: for example, it may do a study on a new form of unit credits that students can use for transfer to different courses or institutions, as a way of reducing the waste involved in some kinds of attrition. Such a reform may well have implications for the university's curriculum, for its organization and administration, and even for staffing. But such a study will typically not discuss the political implications of such a reform, or its financial costs.

A unit for policy analysis, addressing the same problem, will be aiming at giving usable advice. Its frame of reference, therefore, must be as wide as that of its authority. It must take into consideration the full range of factors that its authority does. Such a unit is able to bring together the widest range of information and knowledge that bear on the issues, and its recommendation can contribute to the quality of the resulting decision, and to its effectiveness and success. Authorities which make policies usually like them to be successful, and achieve their intended effects. The advice of a unit for policy analysis can improve their chances for success by clarifying the nature of the problem, examining a variety of comparable situations, weighing alternative courses of action and their relating costs, designing strategies for implementing given policies, and structures for administering the policies decided upon, as well as modes of evaluating and revising policies once they have been put in to a fact.

There are of course some policies which are introduced primarily for political reasons, where other considerations are quite subordinate. In such areas authorities may rely almost exclusively on close political advisers. But there are many problems where non-political considerations are larger, even where political considerations are not wholly absent. In such cases, a policy analysis unit can give highly useful advice and where this is not contrary to the political culture of the society, it may even make recommendations which take political considerations into account. This would not for example be possible for a unit of the British Civil Service, at least explicitly; it is more possible for policy analysis units in American governmental agencies.

Policy analysis units differ in one other respect from "research units." They are almost necessarily interdisciplinary, since they take into consideration in their studies a wider range of relevant factors. They may include sociologists, political scientists, economists, and engineers and lawyers and other experts, depending on the problem. But the crucial distinction is that they produce policy recommendations based on research, rather than knowledge as an additional input to a wholly separate decision-making process. Thus the relation to the authority is necessarily closer in every way.

As we move from the statistical unit to the policy analysis unit, the several units show the following changes:

1. They have increasingly greater discretion over their internal operations, both in the way they define their tasks and in the ways they carry them out.

2. They are likely to be increasingly more costly.

3. They require an increasingly more highly qualified staff, competent in a wider range of skills and subject areas.

4. They require an ever greater degree of trust from the authority they serve. This is almost implicit in (1) above. This trust is required not only by the increasingly greater weight placed on their findings or recommendations in the decision-making process, but also by the fact that the process by which they arrive at those findings or recommendations increasingly exceeds the technical competence of the authority.

5. As the products produced by these units move from technical information to advice, it becomes more important that the unit shares the goals and values of the authority, or can act as though it does. This can more easily be assumed with respect to some policies than others, where political ideology is a larger factor. However, in higher education many problems, even highly complicated ones, may well gain a consensus across a wide range of political preferences. For example, most people would agree that it is better for student to be able to get jobs after graduation that use more rather than less of the skills and talents they acquired in their university or college education.

The development of policy analysis as a discipline is in its infancy. There are relatively few people who are trained to this kind of work, who combine a variety of social science perspectives in themselves, or who are able to organize or take part in applied interdisciplinary studies of this kind. Policy analytical units are costly in a variety of ways; perhaps only the largest public agencies can presently afford them. Moreover they pose other problems, especially in politically sensitive areas. Therefore, the most that realistically can be imagined for higher education in most countries is something between a service unit and a research unit, perhaps something that is primarily a service unit, but which has the authority to spend a part of its time and resources on self-initiated studies. The "level" of the unit, as I have noted, depends in part on the competence of its staff; converseley, a more competent staff can only be recruited if the unit to which they are recruited has a measure of discretion and autonomy in its research. Thus, even if an authority wants the unit primarily to carry out studies that it requests it may be wise to allow the unit a measure of discretion and autonomy in order to attract and retain a staff of higher quality for studies that the authority itself initiates.

On commissioned research

All of the above describes "in-house" organizations, whose staff are permanent members of the units. But one can imagine most of these functions being performed, at least in part, through studies commissioned by a small unit permanently serving an authority. An exception is the

statistical unit, which probably has to be in service continuously to gather and process information that is continually being generated by the institution in question. But one can well imagine a small "coordinating unit" commissioning studies that resemble those conducted by "in-house" service units. Or it may define the problem area more broadly, and request studies that gives the designer more scope for problem formulation and design: in this case, it will employ a research unit for such studies. Or it may request advice of an outside agency: the Rand Corporation and the Brookings Institute in the United States are both large policy analysis units that carry out studies commissioned by other agencies, and that result in policy recommendations, and not merely research "findings." This is certainly a strategy to be considered where the research capacity of the "in-house" unit is small, but its success depends on the existence of a research community in the larger society which will respond to requests for research of one kind or another by the research arm of the authority. Here the role of the coordinating unit closely related to the authority is somewhat different: it has the job of sustaining a research community, gaining their cooperation, guiding their efforts without imposing more constraint than it wishes, and then evaluating the quality of the product. But in general, the degree of resources and trust it possesses will determine the kind and level of research it commissions, and in this respect it resembles the units described above: the larger its resources and autonomy, the broader and more complex the research it can commission; the more risks it can take, the more useful and relevant the findings or recommendations it may gain from the research that it commissions and supports.

On the organizational location of an information unit

Until now I have been discussing various kinds of knowledge organizations* which differ in their functional relation to an administrative authority: that is, in the kinds of work they perform and the degree of autonomy that they possess. But these organizations can also vary in their formal relation to an administrative authority: that is, where they are located organizationally. We can imagine a number of the different possibilities:

1. The unit can be attached directly to the authority as a subordinate staff research unit.

2. It may take the form of a research institute supported by an administrative authority and with a governing board appointed by the authority. Even under these conditions however, the unit is likely to have a somewhat greater measure of autonomy than when it is directly a part of the administrative organization.

*I use this most general term to refer to all of the kinds of information and research units, from statistical units to units for policy analyses, discussed above.

3. The knowledge unit may be supported by one agency of government even though its work is largely for a different administrative authority. An example of this may be a research unit on higher education that provides research and recommendations to a Minister of Education or a Chancellor's Office, but is organizationally supported by an autonomous Research Council.

4. The research unit may be attached to a university, though doing a good deal of its research work for a government agency.

5. The unit may be a privately supported non-profit organization which is supported on research contracts. In the United States the Rand Corporation and the Brookings Institute are of this kind, but they can also be found in many other countries. For example, this is somewhat the nature of the social research units of the Max Planck Institute in Germany.

6. In the United States and elsewhere there are proprietary firms of "research consultant" which support themselves wholly on contracts to do research both for governmental agencies and private organizations.

This does not exhaust the variety of research organizations but points to some of the major types. Each of these types of arrangements has certain advantages and certain limitations. For example, knowledge units that are part of the same organization as the administrative authority to whom they provide information are likely to direct their efforts precisely to the kinds of information the authority wants. Such a unit can supply information closely related to the kinds of decisions and recommendations that the authority is making, and its data fit the authority's forms of reporting. On the other hand, such a unit is also likely to see the problems very much as its administrative authority does, and that may not be the most useful way for those problems to be defined.

There is a temptation to ask the question, where is it best to locate a knowledge unit: inside the administrative agency; outside but under the broad supervision of the authority; outside the authority and largely autonomous; inside a university; or in some other arrangement? But it may be that here, as elsewhere, diversity has its largely hidden rewards, and that there are considerable gains in organizing research even in the same subject area in different ways, each having its own strengths and limitations. This is of course a strain on resources, and there are obvious gains in concentrating resources within one research institution, rather than spreading them more thinly among several, especially if they deal with some of the same problems. Nevertheless the problems of higher education are sufficiently varied so that they may require different kinds of research arrangements to deal with them. For example, an administrative authority may want a combined statistical office and service unit directly within it, to provide data and studies needed in the preparation of budgets and in the justification of those budgets to a higher political authority. But the same authority may find it useful to commission broader studies on, say, the

administrative and educational problems associated with reallocating resources within universities during periods of stable or declining enrollments. This may not be the kind of problem an internal statistical or service unit can perform, both by virtue of its close identification with the decision-making authority, and also perhaps because of the kinds of people it is able to recruit and retain.

The formal relation of knowledge units to administrative authority is greatly influenced by the special circumstances and histories of the higher educational systems in different countries. Nevertheless an authority may find it useful to consider this question with care, rather than to leave the location of such research units entirely to the somewhat accidental processes by which research institutes are often created.

Authorities may be accustomed to placing research problems in the hands of individual research people. They may thus not become aware of the advantages of continuing research organizations, as repositories of pools of knowledge and expertise, technical support, varied perspectives, etc. A research unit is not merely an aggregate of individuals; at their best they embody a tradition of research and a variety of skills that transcend those of any single member, even of their leaders. Moreover such an organization can often function as a locus for training the next generation of researchers in the area, and provide continuity to research in the event that the director or leading research person should change his research interests or retire.

Other ways of supporting research communities

It may be that in the Swedish context it is not feasible or desirable to create distinct units or institutions for research in higher education. In this event, the UKA itself can encourage the development and emergence of a research community in higher education. It can do this best be addressing itself to the central characteristic of research communities: that is, a group of scholars working in a common area of interest who interact with one another frequently and regularly in relation to their shared research interests. It is the quality and character of this interaction that gives rise to the other functions discussed earlier.

One vehicle for such interactions might be an Association for the Study of Higher Education. The Association could be housed and administered in the Office of the University Chancellor, and provide a "clearinghouse" for ideas and reports on higher education to those teachers and graduate students who have worked in the area or have expressed an interest in being informed about work in the area (these latter are potential recruits to the research community). The Association could hold meetings -- perhaps quarterly -- for discussion of reports and papers. These formal meetings, however, cannot be decisive in the development of a research community; what is more important is the development of informal communications among the members of the research community.

An Association for Studies in Higher Education can perform other functions as well:

1. It can support the circulation of research reports and "occasional papers" to all members of the research community.

2. It can publish a newsletter reporting grants made for studies in higher education by various granting agencies and foundations in Sweden and also on the progress of ongoing research in higher education; and developments in the study of higher education in other countries and in international agencies.

3. It can sponsor international conferences and visits by foreign scholars.

4. It can provide a consulting service for people in Sweden doing research in higher education. Researchers often need help in the formulation of problems, in the design of questionnaires, in the analysis of data, in the use of computers, in the design of software, in statistical techniques and so on. An Association for Higher Education can develop a list of "technical consultants" who are known to be highly qualified in one or another of these technical areas, and who have indicated their willingness to offer advice and help to other researchers on request. The University Chancellor's Office might also set aside a small sum for their consulting fees and thus, by subsidizing their services, encourage researchers and groups to avail themselves of these technical consulting services. These technical services are one of the major advantages provided by a research institute. This is one way of organizing them outside of such an institute.

Above all, an Association for Higher Education might take as its primary task and responsibility the encouragement of closer relations and better communications between and among the members of the research community that it serves. That responsibility is distinct from supporting or encouraging research on any given topic in higher education. I cannot emphasize too much that the encouragement of a research community in higher education is different from the support for specific research studies, and ultimately it is more important.

Martin Trow

November 1975

RESEARCH COMMUNITIES - A SELECTED BIBLIOGRAPHY[1]

Barber, B. "Science and the Social Order", Collier Books, New York, 1962

Boalt, G. "The Sociology of Research", Southern Illinois University Press, Carbondale, IL, 1969

Crane, D. "Invisible Colleges", University of Chicago Press, Chicago, 1972

Ben-David, J. "The Scientist's Role in Society: A Comparative Study", Prentice-Hall, Englewood Cliffs, NJ, 1971

Ben-David, J. "How to Organize Research in the Social Sciences", Daedalus, vol. 102 (1973), no 2, pp 39-51

Bertilson, M. "The Social Context of Scientific Discovery", Ph.D.diss., University of California, Sta Barbara, CA, 1974

Blume, S.S & Sinclair, R. "Aspects of the Structure of a Scientific Discipline". In Whitley (1974), pp 224-241 (page 2 in this bibliography)

Crawford, E & Perry, N (eds) "Demands for Social Knowledge: The Role of Research Organisations", Sage, London, 1976

Dureya, E.D. "Evolution of University Organization", In Perkins, J.A., (ed), (page 2 in this bibliography)

Hagstrom, W.O. "The Scientific Community", Basic Books, New York & London, 1965

Hoyt, D.P & Spangler, R.K. "Faculty Research Involvement and Instructional Outcomes", Research in Higher Education, Vol. 4 (1976), pp 113-122

Kuhn, T.S. "The Structure of Scientific Revolutions", University of Chicago Press, Chicago, IL, 1970 (second edition)

Marcson, S. "Research Settings"
In Nagi, S.Z. & Corwin, R.G. (1972), pp 161-191, (page 2 in this bibliography)

Meron, R.K. "Social Theory and Social Structures", The Free Press, Glencoe, IL, 1957

Mitroff, I.I. "The Subjective Side of Science", Elsevier, Amsterdam, 1974

Mulkay, M.J. "Three Models of Scientific Development", The Sociological Review, vol. 23 (1975), no 3, pp 509-529

Murphy, M. "The Development of Peirce's Philosophy", Harvard University Press, 1961

---

1) This selected bibliography has been supplemented to professor Trow's paper by the R & D Unit.

Nagi, S.Z & Corwin, R.G. "The Research Enterprise: An Overview", In Nagi, S.Z. & Corwin R.G., (1972), pp 1-27 (see below)

Nagi, S.Z. & Corwin, R.G. (eds) "The Social Contexts of Research", Wiley Interscience, London & New York, 1972

National Science Board "Science at the Bicentennial - A Report from the Research Community", Government Printing Office, Washington, DC, 1976, (ref. in Science, vol. 194 (1976) no 4264, 29 Oct.

Nelson, B. "On the Shoulders of the Giants of the Comparative Historical Sociology of Science -in Civilizational Perspective". In Whitley (1974), pp 13-20

Nordbeck, B. "Critical Factors in Research Work", Fek-report no 7, Stockholm, 1976

Paisley, W. "The Role of Invisible Colleges in Scientific Information Transfer", Educational Researcher, 1972, 1.4 (April), pp 5-19

Perkins, J.A. "The University as an organization", McGraw-Hill, New York, 1973

Ravetz, J.R. "Scientific Knowledge and Its Social Problems", Oxford University Press, Clarendon, Oxford, 1971, (paperback, Penguin, 1973)

Sanders, I.T. "The Univeristy as a Community", In Perkins, J.A. (1973)

Stankiewicz, R. "Research Groups and the Academic Research Organization", University of Lund, Dept. of Sociology, Sociologisk forskning nr 2/1976, pp 20-32

Storer, N.W. "The Social System of Science" Holt, Rinehart & Winston, New York, 1966

Storer, N.W. "Relations Among Scientific Disciplines". In Nagi, S.Z. & Corwin, R.G., (1972), pp 229-268

Trow, M. "The Creation and Support of a Research Community on Higher Education", (A rep. to the University Chancellors Office, Stockholm, 1975)

Weingart, P. "On a Sociological Theory of Scientific Change. In Whitley, R. (1974), pp 45-68

Whitley, R. "Cognitive and Social Institutionalization of Scientific Specialities and Research Areas", In Whitley, R. (1974) pp 69-95

Whitley, R. "Social Processes of Scientific Development". Routledge & Kegan Paul, London, 1974