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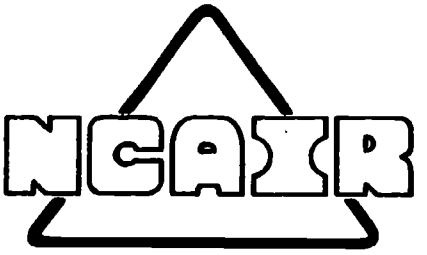
ABSTRACT

This booklet contains the proceedings of the first annual meeting of the North Carolina Association for Institutional Research (NCAIR). Contents include an address by the president of NCAIR concerning "Changing Demands on the Institutional Research Practitioner". He points out that in the relatively short life span of Institutional Research, several changes in demand have come about. One of these changes is a compression of time. This address also contains a summary of the impact of these changes on the institutional researcher and suggestions on how to cope with them. A second address, by an administrator, is entitled "What You Can Do For Us," and suggests that professionals in the field on institutional research make a serious attempt at meaningful communication with faculty and administration of their institutions to clarify the function of institutional research. Other entries include "abstracts and extracts" of workshop presentations conducted during the 2-day meeting. The topics covered were: research on a developmental studies program and its effect on student achievement, a plan for appraising and projecting market conditions and their influence on the employment opportunities for graduates of technical and vocational programs, a system for evaluating, teaching effectiveness, and a discussion concerning the implementation of the Resource Requirements Prediction Model 1.6 (RRPM 1.6). (MJM)

THE INSTITUTIONAL RESEARCH PRACTITIONER: PROBLEMS, PROCESSES AND PROCEDURES



First Annual Meeting of the North Carolina Association For Institutional Research

1973

Charles I. Brown, Editor

PUBLICATIONS of the NORTH CAROLINA ASSOCIATION for INSTITUTIONAL RESEARCH

Proceedings

1973 - Inaugural Proceedings of the North Carolina Association for Institutional Research*

*Requests for copies of the limited number of 1973 Proceedings still available should be directed to Robert M. Ussery, Director, Institutional Research, East Carolina University, Greenville, N. C. 27834

1973 - FIRST ANNUAL MEETING - 1973

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THE INSTITUTIONAL RESEARCH PRACTITIONER:

PROBLEMS, PROCESSES AND PROCEDURES

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INTRODUCTION

The convening of the First Annual Meeting of The North Carolina Association for Institutional Research at the Downtowner East in Charlotte on October 31st and November 1, 1973 turned out to be as informative and inspirational as its planners had hoped it would be... I could say that this economy or mini-sized PROCEEDINGS springs from an ecological consciousness, using as grounds that fewer of our stately North Carolina pines would be needed to place it in the hands of the reader, I could say that, and make absolutely no mention of the charge to me by the Executive Committee that NCAIR is forced by sheer economics to husband its finances to the point of niggardliness...It had been my hope that an abstract of or extracts from each presentation would be included but faced with this sole alternative the 1973 PROCEEDINGS will be limited to but a sampling of the workshop presentations... In an attempt to make up for this lack I would urge that should a particular title of a workshop paper not included catch the eye and fancy of the reader that contact be made with the author for a copy... With this proposed hint as to how the reader may broaden the scope of their PROCEEDINGS, the remainder of the introductory remarks to THE INSTITUTIONAL RESEARCH PRACTITIONER: PROBLEMS, PROCESSES AND PROCEDURES will take the form of a brief odyssey of my observations and impressions of things heard and seen during the two-day affair.

On Wednesday, October 31st, Halloween Day, I woke up in Fayetteville at 6:00 a.m. and drove all the way to Charlotte accompanied by the same nagging doubt that had been with me the night and week before as to whether NCAIR's 1st Annual Meeting would be filled to overflowing as the Inaugural Program in Chapel Hill earlier in the year had been or whether the meeting would be exclusively attended by the Executive Committee and to those mentioned on the Program, as it turned out I needed not to have worried because NCAIR's 1st Annual Meeting had a two-day attendance of close to 100. The 100, or nearly so, attenders stretched from members of NCAIR; to non-members (who were for the most part members of the North Carolina Association of Colleges and Universities); to observers from Georgia, Tennessee, and West Virginia who wanted to know how to organize an institutional research association at the state level; to camp followers.

...Over and beyond the pre-registration figure of 40 given me by BOB USSERY, I should recount that the very first real live intimation I had that NCAIR would do alright attendance-wise was when I over-heard one Realtor (as Association of Realtors was meeting on the same floor as NCAIR) saying to another, "May, let's not go back to our conference, let's go to the NCAIR instead." A moment or two later I understood his reason full well, for behind our banner and registration table was the comely WANDA FISCHER...and oh yeah, TANABB was there too.

...The first General Session, 1-2:20 p.m., attended by an assemblage of more than 50 persons was fast-paced and a good omen of things that were to come...first, words of welcome were extended by the editor...Next on

the agenda was a housekeeping chore, it seems as though a semantic problem had arisen because of a misplaced semi-colon or two in NCAIR's Constitution, however, it wasn't long before the very capable and brilliant GLORIA SCOTT was able to inform a relieved membership that the semi-colons had been placed aright and the semantic confusion no longer existed...Following Gloria to the lectern was the president of NCAIR, ROBERT REIMAN. Reiman, in my view must be the most courageous practitioner of institutional research in all of North Carolina and in a few adjoining counties of the neighboring states, and I have no question but that you will agree with this assertion too after a reading of his gutsy keynote address "CHANGING DEMANDS OF THE INSTITUTIONAL RESEARCH PRACTITIONER", a pronouncement and declaration that was to set the tone for all ensuing activities...Following the conclusion of the first General Session, utilization was made of the first Coke and Coffee Break to complete checking into my room.

...Next on the agenda were the initial Workshops, 3-4:00 p.m., and as an old Conference and Workshop goer I naturally assumed that a goodly portion of the attendance would be standing around the hall swapping stories, but wrong again, and again happily so, where everybody was in the Workshop of their choice listening to NORMAN UHL and NANCY BECK extolling the benefits of LONG RANGE PLANNING: MEASURING INSTITUTIONAL GOALS; or to the interesting student logs that AARON HYATT is amassing for A STUDY OF STUDENT CHARACTERISTICS.

...Following another break for coffee, coke, or both, three workshops were held currently from 4:15 - 5:15. I chose to attend STEVE LAIL'S presentation on COMPARATIVE RESEARCH ON STUDENT ACHIEVEMENT and upon its completion I was prepared to swear that I had chosen the premier attraction, but those who had chosen to hear and question GLORIA SCOTT on A CASE STUDY ON INFORMATION MANAGEMENT or NANCY BECK on ETS' INSTITUTIONAL RESEARCH PROGRAM FOR HIGHER EDUCATION (IRPHE) were equally laudatory of the presentations they had attended.

...Filled to the brim with food for thought, the next break extended into a Social Hour (5:15 - 6:30 p.m.) and good use was made of this happy privilege to internalize the newly learned information, concepts, techniques, etc., with several belts of Scotch.

...With the arrival of 6:30 p.m. came the time to eat, the introduction of the speaker by ALLEN BARWICK and then CHARLES D. HOUNSHELL himself. Utilizing WHAT YOU CAN DO FOR US as the title of his address, HOUNSHELL lived up to every line of his billing. But now having read both REIMAN's and HOUNSHELL'S speeches several times, I am compelled to say that those guys are either on the same wave length or that they both used the same speech writer. My reasons for reaching these conclusions are that both after surveying the realm of institutional research found the same shortcomings within the craft and both offered solutions that are remarkably similar in substance...The questions posed and answers made by HOUNSHELL, the anticipation of HOUNSHELL'S questions and resolves made by REIMAN make for very interesting reading and have been placed in THE PROCEEDINGS back-to-back.

...After dinner, and a jaunt into the maws of Charlotte for a short visit with kinsmen, and a frolic in the on-the-premises night club, I went beddy-bye.

Thursday, November 1st: Came the dawn, breakfast, and the beginning a day of good-natured ribbing because in reporting the news TODAY'S SHOW Frank Blair had said, that someone during the night had made off with a ninety-six pound pumpkin belonging to a farmer named Charlie Brown.

...I would hazard the guess that the presentors of the second day of Workshops had taken careful note of the benchmarks made by those who had preceded them and that they now had to really outdo themselves...And outdo themselves they did, for example, ELMO PELSER was so steeped in MARKET RESEARCH TECHNIQUES during the 9-10:00 a.m. time period that he really made the sparks fly, as did EDWIN CHAPMAN and ROBERT REIMAN in their discussion of FACULTY ACTIVITY ANALYSIS...Another coffee and coke break impinged upon the scene followed by still another cascade of ideas from EDWARD NELSON on FACULTY EVALUATION and JAMES NICHOLS on ACTIVATING RRPM-1 from 10:15-11:15 a.m.

...The Business or third General Session, presided over by President ROBERT REIMAN commenced at 11:30 a.m. and continued through 12:30 p.m. ...As all of the foregoing meetings had been, this too was a beautiful meeting, the major activities accomplished above the restrained comments of self-congratulations and the extension of verbal accolades to a very cooperative membership, were appraisals of the MEMBERSHIP and FINANCE of NCAIR by ROBERT USSERY and AARON HYATT respectively; a report of the NOMINATION COMMITTEE chaired by EDWIN CHAPMAN; the election of NCAIR officers for 1974; and a number of excellent ideas by the membership as to how NCAIR might continue and even improve upon its current level of prosperity and influence...Following adjournment and a brief huddle by the Executive Committee, NCAIR's fun-and-games man, JONES JEFFRIES, handed us more than a moment of concern.

...In marked contrast to the worry lines I wore driving into Charlotte, on the way back to Fayetteville it was smiles at 50 mph all the way... And well I might because NCAIR had just scored another coup via a spectrum of workshop presentations relevant to information/data management; institutional goals/long-range planning; student characteristics; faculty evaluation; non-faculty work-load; developmental studies; and business/community surveys...and what is more the presentors of this array of workshops came not only from the colleges and universities but from the institutes and community colleges as well.

NORTH CAROLINA ASSOCIATION FOR INSTITUTIONAL RESEARCH

AGENDA AND CONTRIBUTORS

Date/Time	Activity	Place
October 31, 1973		
10:00 AM - 1:00 PM	Registration	Second Floor
1:00 PM - 2:30 PM	General Session	Rooms 202, 204, 206, 208
	Welcome Charles I. Brown, Fayetteville State University	
	Ratification of Constitution Gloria Scott, N.C. A&T State University	
	"Changing Demands on the IR Practitioner" Robert Reiman, Appalachian State University	
2:30 PM - 3:00 PM	Break	
3:00 PM - 4:00 PM	Workshop 1A	202, 204
	"Long-Range Planning: Measuring Institutional Goals", Norman Uhl, N.C. Central Univ., and Nancy Beck, Educational Testing Service	
(Two Concurrent Sessions)		
	Workshop 1B	206, 208
	"A Study of Student Characteristics", Aaron Hyatt Western Carolina University	
4:00 PM - 4:15 PM	Break	
4:15 PM - 5:15 PM	Workshop 2A	202, 204
	"A Case Study on Information Management", Gloria Scott N.C. A&T State University	
(Three Concurrent Sessions)		
	Workshop 2B	206
	"Comparative Research on Student Achievement", Steve Lail, Catawba Valley Technical Institute	

NCAIR
Agenda for Annual Meeting (Continued)

Date/Time	Activity	Place
	Workshop 2C	208
	Information Pertinent to ETS's Institutional Research Program for Higher Education IRPHE)	
5:15 PM - 5:45 PM	Break	
5:45 PM - 6:30 PM	Social Hour	Marco Polo C
6:30 PM -	Dinner Meeting	Marco Polo C
	Introduction of Speaker: Allen Barwick, University of North CArolina-General Administration	
	Address: "What You Can Do For Us!" Dr. Charles D. Hounshell Vice-Chancellor for Administration University of North Carolina at Greensboro	
November 1, 1973		
9:00 AM - 10:00 AM	Workshop 3A	202, 204
	"Faculty Activity Analyses", Edwin Chapman, Western Piedmont Community College; Robert Reiman, ASU	
(Two Concurrent Sessions)		
	Workshop 3B	206, 208
	"Market Research Techniques", Elmo Roelser, Appalachian Special Development Consortium	
10:00 AM - 10:15 AM	Break	
10:15 AM - 1:15 AM	Workshop 4A	202, 204
	"Faculty Evaluation", Ed Nelson North Carolina Central University	
(Two Concurrent Sessions)		
	Workshop 4B	206, 208
	"Activating RRPM-1", James Nichols Concord College (W. Va.)	

NCAIR
Agenda for Annual Meeting (Continued)

Date/Time	Activity	Place
November 1, 1973		
11:15 AM - 11:30 AM	Break	
11:30 AM - 12:30 PM	Business Session	202, 204, 206, 208
	Membership Report (Ussery)	
	Budget Report (Hyatt)	
	Election of Officers (Chapman)	
	Other Business	
	Adjourn	

PRESIDENTIAL ADDRESS AND INVITED PAPERS

* * * * * *

CHANGING DEMANDS ON THE INSTITUTIONAL RESEARCH PRACTITIONER

Robert E. Reiman

Appalachian State University

It seems a little incongruous to speak about change in a professional field that is as new as institutional research, and, further, it may seem absolutely blasphemous that one such as I, who has only known about institutional research for a little more than a decade, should have the effrontery to suggest that very much change is indeed occurring. Nevertheless, I have already observed considerable change, particularly as it deals with demands being levied directly on the practitioner.

Frankly, I can find little documentation to support my remarks. The literature of institutional research is sparse to begin with; most of what has been published is contained within about ten volumes of proceedings of the annual forums of the Association for Institutional Research, and, moreover, consists mainly of reports of research findings. In browsing through the relatively meagre supply of information that remains, I do find two things that have not changed: (1) the basic definitions of the purposes and goals of institutional research, and (2) the continuing controversy as to the definition of the role and status of the institutional researcher.

It seems to me that Hugh Stickler's classic definition, formulated in 1959, was sufficiently comprehensive to withstand change. According to Stickler:[1]

> Institutional research refers to research which is directed toward providing data useful or necessary in the making of intelligent administrative decisions and/or for the successful maintenance, operation, and/or improvement of a given institution of higher education. It includes the collection of and analysis

> of data used in appraising the environment or "setting" in which the institution operates, in preparing the budget, in planning new buildings, in assigning space in existing buildings, in determining faculty loads, in admitting students, in individualizing instruction, in planning the educational program, and the like. It is needed to facilitate efficient operation, but is also needed to promote qualitative improvements.

This seems to describe fairly well the ends that most of us were, and still are, trying to seek. However, I see Stickler's purposes considerably expanded and I see considerable differences in the means through which we seek those ends.

In December of this year I will complete my seventh whole year as a practitioner of institutional research. (I might add that our national association has been formally organized just about that same length of time.) Like some of you, I had little formal training that could be even remotely related to institutional research; I was quite hot on the philosophy of higher education, but stone cold on the methodology and techniques of any kind of educational resea .h.

Notwithstanding these personal weaknesses, I started out, in 1966, to do <u>all</u> of the things I have just read from Stickler's statement. Because of the little I knew of the ways of the profession, I wrote to many of the "front-runners" in institutional research and asked them how I should go about doing these things. As is typical of the breed, I was <u>innundated</u> with advice! For this advice I was very grateful, because, as some of you may remember, we were just then beginning work on the first state-wide long-range plan for higher education.

My first task, in the overall endeavors of long-range planning, was to produce an enrollment projection, so I borrowed my methodology from an eminent practitioner of the upper midwest United States. His technique was sufficiently complex and rigorous, and was representative of most

projection methodology of the time; my administrator colleagues could not argue over it--they could not even understand it! It was, however, respectfully admired within the field; yet it was hard to believe that the figures it yielded could be so unreliable! Now, only seven short years later, no one in his right mind would try to project enrollment using the scheme that I tried to use then, because it was based solely on historical experience. As you know, that approach which, in many other instances as well, damaged our credibility somewhat during the sixties is even less acceptable today. We have come to recognize that quite often the only reliable historical information that we possess is what happened last year. So, we accept this premise and build out predictions based on sets of assumptions, rather than depending on experiences.

This is where, as I see it, monumental changes in demand are coming about. No longer do we have the option of formulating a strategy or compiling a plan for institutional change. Instead, we are called upon to present, in advance, a list, or lists, of all the viable alternatives that may accrue as a result of a particular decision or course of action. Producing these alternatives requires the use of some unproven techniques. I am speaking, I guess, of something often referred to as simulation modeling. Because "quantifiers" have not yet come up with models that present us with optimum solutions, we are forced to plan the "if-what" game (i.e., if a certain course of action is taken, what will be the outcome?) This is all well and good, but we sometimes find that the list of alternatives is so long that we need another model to explain the alternatives to the alternatives!

That leads to the next, and to me the most frightening, change in demand--that is, the compression of time. Way back when I started out (remember, it was a whole seven years ago) we would sit down and brain-

storm a proposed study, review the pertinent literature, formulate our research design, develop specific instruments, collect the data, analyze it, write the report, send copies to everyone, receive a few plaudits and a little criticism, and then tool up for the next iteration of the study. This process usually took from several months to sometimes a year, depending upon the nature and complexity of the investigation. True, we sometimes had several of these going simultaneously, but the whole process was terribly time consuming. No more! In the first place, studies pursued in the manner I have just mentioned usually turned out to be pretty bland. We often discovered from them facts that we already knew, or at least suspected. Secondly, no modern-day administrator wants to think ahead that far or wait that long for hard data upon which to base a decision. His world is continually in crisis (it has been said that crisis is currently the normal state of events in higher education) and crises must, of necessity, be dealt with swiftly. So, today we are faced with the need for not only a well stocked "data-bank," but for a "solution-bank" from which the institutional research practitioner will be able to draw immediately the alternatives that might accompany almost any course of action.

This reinforces further another demand, one which I have labeled, for want of a better term, "instant institutional research." We live in an "instant" age: instant grits, instant credit, instant-on television, etc. Our "customers" demand "instant information." Only a few weeks ago I was called upon to produce a computerized model to answer the question: What would be the faculty promotion and tenure situation in our institution in five or ten years if we did, in fact, reach steady-state conditions of financial support? The chairperson of the committee requesting the manipulation expected her answers within the week and was somewhat miffed when

I stated that it might take me at least two weeks to effect such a model! As a matter of fact, I have not managed to assemble the model yet, but I am working on it!

"I am working on it"--those words sum up the confusing state of affairs at the moment. We cannot get help from the literature, because there is not any--we are all too busy to share our works through publication. If you have browsed lately through the ERIC indexes you see little or nothing listed under the heading of institutional research. In the last index I looked at even the subject heading was missing! This surely is a deplorable state of affairs, but one to which I am a party--I have not had time to submit anything to ERIC in the past eighteen months.

Another facet of changing demand has to do with our ability to determine more succinctly just where we fit in the input-output process. Are we processors of data or are we facilitators of change? This is a weighty question, and it staggers me, but I feel more concerned about it daily. Measuring inputs and engaging in processes at one time seemed to me to be the role of the institutional research practitioner. But now I think that only leads to what Suslow was referring to when he said:[2]

> Regardless of the organization of the institutional research program at any institution, there will be limited resources, both of staff and expendable funds. To conserve its energies, institutional research should not perform the functions of generator or maintainer of routine and extensive data files, but should be involved in the initial description of data and monitoring their quality, validity, and reliability. Institutional research should participate in the development and monitoring of the institution's management information, but it should not be called upon to maintain any information system on a day-to-day basis nor should it be asked to manage the computer facility or facilities associated with any system. These functions are necessary and they require trained staff, but they are the processes, not the products, of information. The limited resources of any institutional research effort can be rapidly dissipated if that effort becomes burdened with repetitive, routine data collection and large systems maintenance. If these functions are called institutional research, they are incorrectly named.

We need to copy this portion of Suslow's declaration on institutional research underline some of it, and send it to our immediate supervisors! The fact is, we still need to measure inputs, and we still need to be involved in processes--but these must be routinized, mechanized, and speeded up so that our real function is to act as the catalyst in the formulation of alternative actions. And, most important of all--we need to reach out into that never-never world of discovering what the real product of higher education actually is. By that I mean we have got to get a better handle on outcomes, if we are to improve higher education.

Another change that I have observed is the growing tendency to utilize the process and products of those other manipulators of quantitative data within the institution. Because of some of their efforts, we are in the midst of an "output glut." Administrators have finally discovered the computer and are no longer frightened by its threats to disclose all. They demand reams of data. As an illustration: Five years ago no one at my institution was terribly concerned about the kinds or grades being awarded to students by faculty members. My office produced quarterly a routine study (which no one looked at) which ran to some 15 or 20 typewritten pages of summary analyses. Today, with everyone concerned about the disparity of grading practices, our administrators demand the production of analyses that run between 300 and 400 pages--so much that no one is able to digest the results. This leads me to worry about the fact that as our capability to produce output increases, our time and ability to interpret data decreases. This increase-decrease phenomenon appears to be expanding at an exponential rate.

To summarize briefly the impact of the changes in demands that I see being imposed upon the institutional researcher: (1) I no longer am afforded the lead time to produce research of an esoteric nature; I must

find ways to retain the quality but greatly speed the process; (2) my customers (administrators and/or committee chairpersons) no longer seek my philosophical advice--they only want to see it in a print-out; (3) no one knows how to read my "new" evidence (that which deals with simulation), I need to take time out to educate my clientele; (4) I need to work more closely with my colleagues who process my data, so that their output is more easily understood by all of us; (5) I need to worry less about information that I do not have and get to work forging better linkage mechanisms for utilizing the data I already have; and (6) I need to quit griping about the confusion that I face daily and spend more time sharing my meagre store of techniques and procedures with my counterparts, wherever and whomever they might be.

The last item is, to me, the most important one. There's no time left to re-invent the wheel! I hope that is what our new association is all about.

---

1 W. Hugh Stickler, "The Role of Institutional Research in 'The Managerial Revolution in Higher Education.' An overview," in W. Hugh Stickler (ed), Introductory Papers on Institutional Research, Atlanta, Southern Regional Education Board, 1968, p.3.

2 Sidney Suslow, A Declaration on Institutional Research, The Association for Institutional Research, 1972, p.7.

WHAT YOU CAN DO FOR US

by

Charles D. Hounshell
Vice Chancellor for Administration
University of North Carolina at Greensboro

It has become a cliche to say that there is a need for more efficient and more effective management in colleges and universities:

It is necessitated by spiraling enrollment, spiraling costs, followed by stabilized enrollments and competing demands for resources.

It is required by demands for accountability: what are we doing? For whom? At what cost? To what effect?

It is epitomized by necessity for planning. We need to know where we are, where we want to go, how we propose to get there and when. These questions will get answered, either by institutions of higher education themselves or by those to whom such institutions are accountable. It is a paradox that educational institutions, presumably citadels of rationality, should not be in the vanguard in planning - in applying reason to the shaping of their own destinies. Increasingly, however, we are coming to the realization that if we do not do our own planning someone else will do it for us.

In the development of more efficient and more effective management systems, and in the development of planning procedures, those of you who are members of the new academic discipline of institutional research must play a leading role.

Mr. Earl Cheit, in an address before the American Council on Education, raises the question as to whether we can be both systematic and academic. Mr. James Kelly, in response, says that the real question is

whether the academic community can accommodate a new discipline - the management systems analyst - in its midst. I would suggest that it is probable that the academic community cannot survive if we cannot develop more effective and more efficient management techniques.

What can you do for us in this situation? You can educate us concerning what you can do for us.

Especially, for this audience one needs to define his terms or categories.

By "You" I mean the members of the new academic discipline of Institutional Research - the specialists, professionals, producers.

By "Us" I mean the faculty and especially the administration - the generalists, laymen, consumers.

For my purposes this evening, permit me to place myself in the category "Us", and to place you in the category "You". As the one to be educated by you, I would like to relate some of my own general attitudes towards institutional research and my understanding of what constitutes the function of institutional research. I justify this parading of my own prejudices and understandings - or misunderstandings - on the grounds that it may be typical of many of the professors and administrators who need to be educated concerning institutional research. It is, of course, a maxim of good teaching that you start at the level of your students. My own experience and thoughts may give you an indication of the level of those whom you should educate, and the magnitude of the educational task that lies ahead of you.

Without attempting to be exhaustive I would like to list a number of critical attitudes (prejudices) concerning Institutional Research that I have harbored - at least fleetingly - at one time or another in my experience. I suspect there are professors and administrators who still

hold these attitudes.

1. Institutional Research is window dressing for decisions made independently of the data. Perhaps all of us could cite examples where this was or at least appears to be the case. I recall a decision in one institution to suspend or terminate certain programs where decision was justified on the basis of a cost analysis that was made subsequent to what was in fact the decision.

2. The institutional researcher imposes his values on the data. Some years ago I knew of a researcher who found that the freshman grade average did not increase as the quality of the entering freshmen improved (as measured by high school GPA and scores on SAT), and he concluded that the faculty was not responsive to change in quality of students; that the faculty maintained traditional grade curve and that this was undesirable in view of the improved quality of the students. Clearly his conclusion reflected a value judgment that the expectations on the part of the professor should have remained static.

3. Institutional researchers are preoccupied with methodology, they talk among themselves in their own language, and they are unable to communicate meaningfully with others. The fact that the same criticism could be levelled at their own disciplines does not preclude such views by members of faculties.

4. Institutional Research is a necessary evil, a weapon to be mastered for one's own purposes. Some educators have expressed the view that the development of offices of IR and MIS are inevitable, so let's adopt the strategy of the Saxons - let's learn to speak French better than the Normans. Let's beat the quantifiers and the systematizers at their own game.

5. Finally, there is the rather pervasive feeling that much that

comes under the label of IR constitutes a threat to traditional academic values: a fear that data will be substituted for judgment, that creativity in program development will be hampered if not stifled by reporting forms and cost analyses, that quantification will supplant qualification.

As I said, these are views that I have harbored - at least fleetingly - at one time or another. They are views held still by a sufficient number of "us" that they should be taken into account in your task of educating us as to what you can do for us.

At the level of my present experience and understanding, I would list the functions of institutional research as follows:

1. Develop and maintain central data sources for reporting and for analytical and evaluative purposes. The Director of Institutional Research should be the person with the greatest knowledge of available data sources in the institution and should be responsible for responding to special and routine requests for information, such as NCHEMS and HEGIS. He should also ascertain the types of data desired by the principal administrative officers and the data that may be needed for answering questions that should be asked about students, the curriculum, faculty, administration policies, financial resources, and physical plant. Procedures for collecting pertinent data on a routine basis should be established and provision made to assure that in-put to the information system would be retrievable in an efficient manner.

2. Develop instruments for planning purposes. Operational as well as analytic and evaluative data provide the in-put for the development of a planning capability through utilization of a number of NCHEMS products. The Director of Institutional Research should play a major role in developing, testing, implementing, and evaluating such instruments as the ICLM and RRPM. These are potentially valuable as internal planning

tools and for the production of information which would not otherwise be readily obtainable. The Director of Institutional Research should have the responsibility of testing such models and of advising the principal administrators concerning their usefulness and concerning the effects of altering various parameters.

4. Serve as resource person. The Director of Institutional Research should be able to assist others by raising questions and suggesting appropriate data sources which would aid in stimulating the development of studies of individual departments, programs, or operations. If the Director is familiar with a wide range of institutional, state, regional, or national information sources, he can be of great assistance to individual faculty members, faculty committees, or administrators. He should act as a channel of information to interested persons and should be able to point to particular problem areas as well as anticipate the types of problems which might develop.

In my view, the role of institutional research in the future of higher education is central. There is no reason for incompatibility between efforts to manage our institutions in a rational, systematic manner on the one hand and the preservation of the essential, desirable characteristics of academic institutions on the other hand. Indeed, it is most likely that the latter can be maintained and preserved only if the former is undertaken.

I would urge you as professionals in institutional research to enter into dialogue with the faculty and administration of your institution concerning the function of institutional research. I would invite you to educate us concerning what you can do for us.

ABSTRACTS/EXTRACTS OF WORKSHOP PRESENTATIONS
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COMPARATIVE RESEARCH ON STUDENT ACHIEVEMENT: A DEVELOPMENTAL STUDIES PROGRAM

Steve Lail

Catawby Valley Technical Institute

In the Fall Quarter, 1972, Catawby Valley Technical Institute implemented a pilot Developmental Studies Program in the business curriculum utilizing four courses: English Grammar, Reading Comprehension, Business Mathematics and Introduction to Business. The initial program has been restricted to a limited number of courses in the business area in an effort to closely control all variables possible so that a viable comparison can be made between the progress of the developmental students and traditional curriculum students taking the same courses.

The objectives and the credit hours for the developmental courses are identical to the traditional courses. The primary differences are in the teaching techniques being used and the time limit allowed for completion of the material. The program is designed to give the student all the time and personal instruction necessary for him to complete his courses successfully. This is achieved by dividing the courses into small units with a specific set of tasks to be accomplished in each. The student works through each unit at his own pace completing one before beginning another. Upon entering class the student takes an inventory test which surveys his general knowledge of the material to be covered. The instructor can then determine exactly where in the course the student needs to begin. This eliminates starting the student into material with which he is already familiar and also helps insure against starting him

into advanced material for which he is not yet prepared.

Each course is based upon measurable objectives that inform the student exactly what he can expect to learn and precisely what he must do to receive each grade. The student is informed of the minimum number of objectives that must be accomplished for each respective grade of "A", "B" and "C". All tests must be passed at the 80% level which is a minimum grade of "C". If the student falls below the 80% proficiency level he is required to re-study the material on which he missed the questions and re-take the test a short time later.

Since lack of motivation is an ever present problem with the under-achiever, we have eliminated the grades of "D" and "F" in this program as an added incentive. It is not only our purpose to give better instruction, but also to build self confidence in the student so that he may be more fully aware of his capabilities. If the student has not successfully completed at least the minimum number of objectives for a grade of "C" by the end of the quarter, he will receive a grade of "Incomplete", register for the next quarter and take whatever additional time necessary to complete the developmental course(s).

Students were selected for the program on the basis of general aptitude scores using the General Aptitude Test Battery. We conducted a regression analysis on the aptitude scores of all incoming freshman, predicting the degree of scholastic success these students would achieve while at CVTI, then selected 30 people with the lowest scores to enter the program. Among the 30 students that entered the program 18 completed their courses during the first quarter, 7 the second quarter, leaving only 3 students in developmental courses during the third quarter. The retention rate in the developmental program was 100% for the fall quarter, 93% for the winter and spring sessions in which two students dropped out

of school for personal reasons.

Although the students chosen for the developmental program had significantly lower G.A.T.B. scores than the average student, their final course grades reflected no significant difference from that of the general student population taking the same courses under traditional instruction. This fact alone seems to indicate that given enough time and individualized instruction, the underachieving student can successfully complete college level work.

The materials used in these classes were designed and developed during the 1971-72 school year by the instructors teaching the courses. The continuous revision and updating of these courses after each quarter helps insure that the students achieve optimum results. In addition, consortium funding has enabled us to purchase study carrels equipped with slide projectors, tape recorders, and headsets. Through the use of this equipment we have the capabilities to supplement the student's instruction with relevant audio-visual materials.

Although final evaluation of the pilot program is not yet completed, preliminary results show a high degree of success. Based on these early indications, it is our belief that the program will prove to be invaluable means with which to aid the underachieving student.

In addition to the continued administration, evaluation, and expansion of the Developmental Studies Program the coming year will be devoted to the research and development of a Business and Industry Survey for the surrounding area in an effort to insure that the institute's offerings are compatible with the community's educational needs.

Overall, the initiation of this year's activities have to be considered a total success. This positive beginning coupled with the expectation of increased funding next year will enable us to continue to find

methods of providing the best educational opportunities possible for all people.

MARKET RESEARCH TECHNIQUES: A PLAN FOR A BUSINESS COMMUNITY SURVEY

Elmo V. Roelser

Appalachian Developing Institutions Consortium

The ideas and techniques presented in this talk have grown out of efforts by personnel in the Department of Community Colleges to appraise and project job market conditions that will influence the employment opportunities for graduates of technical and vocational programs.

The preparer of this talk has had the benefit of ideas and techniques developed by the --

Research Coordinators, Appalachian Developing Institutions Consortium Occupational Information Center, with its Directing Staff: Mr. Marcus Allred, General Harvey Fischer (retired), and Ms. Christine F. Myers

The applied research activities of personnel in these organizations has centered on developing high school student surveys, alumni and attrition follow-up studies and business-community surveys -- all within a projected Management Information System.

RATIONALE FOR THE STUDY

While the 1970 Census data are available in many state and federal publications, these data lack the specificity required for planning in the one, two, or three county community college/technical institute service areas. The problem with utilizing data from a publication such as the General Social and Economic Characteristics: North Carolina, a document from the U.S. Department of Commerce, is (1) that the statistics are not printed if their disclosure would reflect upon individual firms and (2) that the details on numbers of persons employed in certain occupations are not classified by the occupational titles necessary for planning at the institutional level.

After reviewing the statistical materials available through state and federal agencies, it was determined that the institutional program planning data could only be acquired by conducting a business-community survey. For this reason the study seemed to be justified.

PURPOSES OF THE STUDY

The Business-community Survey has two purposes:

1. To gather information that will facilitate five-year projections of all number and types of jobs that will be available in the institutional service area -- jobs for which the community college or technical institute can provide training.

2. To provide a direct personal communication link between employing organizations in the area and the local two-year institution so that information about community needs and community college/technical institute capabilities can be exchanged.

To accomplish the purpose of the study, it is anticipated that the analyses of the business-community survey data will include the comparison of the number of students selecting particular education-training programs with the number of graduates and ELMS (Early Leavers with Marketable Skills) of curricular programs; and then these two numerical items will be contrasted with the demands of the job market.

EVALUATION OF TEACHING EFFECTIVENESS

Edward A. Nelsen

North Carolina Central University

As an institution which serves substantial numbers of disadvantaged and educationally handicapped students, NCCU can help its students achieve their full intellectual potential and personal maturity only if it maintains a highly capable and dedicated teaching staff. Although some pessimists have claimed that (individual) "teachers are born, not made," establishment and maintainance of high caliber teaching staff will not result from chance. To fully meet its obligation to its students, NCCU must strive to acquire, support, and retain effective teachers.

Among the various procedures an institution can use to establish and maintain excellent teaching, perhaps none is more basic than an evaluation system. A system for evaluating teaching effectiveness could potentially aid and improve the teaching-learning process in multiple ways, for example:

--instructor evaluation and rating scales can help define and clarify personal attributes which are related to successful teaching;

--evaluation data can serve as feedback to inform instructors concerning their impact on students and to suggest means for improving teaching;

--evaluation techniques can be designed to bring about specification of teaching objectives;

--evaluation data can provide administrators with an objectiv- basis for rewarding effective teachers with promotions and/or merit pay increments;

--course evaluation data can provide students with information concerning characteristics of courses and instructors, which in turn could better enable them to select courses which would fulfill their needs and expectations.

In view of these potential benefits from a teaching evaluation system, it is not surprising that numerous efforts have been made by faculty committees, student committees, and administrators to initiate evaluation procedures at NCCU, as well as other institutions. Indeed, many would consider some sort of evaluation system a necessity. Thus, it is all the more perplexing that faculty members, administrators, and students have been unable to agree upon instruments, procedures, and policies for evaluating teaching. This perplexity is shared, moreover, by faculty, students, and administrators at many other colleges and universities, which likewise have been unable to implement evaluation procedures which were by-and-large satisfactory for all concerned parties.

The failure to successfully implement adequate teacher evaluation procedures can perhaps best be understood as resulting from the sheer complexity of the issues and problems involved in the evaluation of teaching effectiveness. Indeed, before a systematic procedure for evaluating teaching can be successfully implemented on an institution-wide basis, these issues and problems must be recognized and resolved to the satisfaction of persons affected by the process, including students, faculty members, and administrators.

First, there is the fundamental question concerning the purposes and objectives underlying the evaluation. Rarely have the different parties agreed upon a particular purpose or purposes for a system, and each party might expect the results of an evaluation procedure to serve his own purposes. For example, an instructor might wish for feedback concerning his impact on students and for other information which could enable him to improve his teaching effectiveness; an administrator might desire objective data he could use in rewarding effective teachers with promotions and/or merit pay increments; and students might be primarily concerned with information which could better enable them to select courses and instructors who would meet their needs and expectations.

However, in actual attempts to select or design data gathering instrument(s) and to implement administration, scoring, and reporting procedures, these various purposes and objectives may readily come into conflict with one another. For example, evaluation for course improvement should consider various aspects of a course, including the textbook, pace and difficulty level of the course, class size, laboratory exercises and facilities, course objectives, suggestions for improvement, etc. On the other hand, evaluation for promotion and/or merit-pay increments should be concerned primarily with those aspects of a course that are directly under the control of an individual instructor, e.g. the quality of lectures, the instructor's preparedness, his concern for students' progress, etc. Furthermore, an evaluation procedure concerned with course improvement might be open-ended, subjective, and primarily concerned with qualitative issues. By contrast, a procedure concerned with ratings for pay and promotions should be structured (standardized), objective, and ultimately quantitative. It is also possible that students or other raters would respond differently to given instruments if they were aware of the instruments were to be used for one purpose versus another.

Stated in another way, if the primary purpose of evaluation is course improvement rather than comparison among different instructors, then "popularity," halo effect, and other rater biasing factors are relatively unimportant, and subjective viewpoints and suggestions on an open-ended instrument by individual students may be very helpful. By contrast, if the primary purpose of evaluation is to determine promotions, then issues such as objectivity, quantitative weighting schemes, possible rater biases, standardization of the instrument and procedures, automation of scoring procedures, cost of administration, procedures for reporting data, etc. become paramount and problematical.

In sum, it is clear that the contrasting purposes underlying evaluation might lead to conflicting procedures and confounded results. It should be recognized that it is probably impossible to develop a single instrument or procedure which satisfactorily served all of the purposes

discussed above. Thus, implementation of an evaluation system at NCCU, if it is to be comprehensive, fair, successful, and effective, will require study, understanding, cooperation, effort, and time on the part of students, faculty, and administrators. It should also be recognized before undertaking the effort, that no evaluation system can operate effectively beyond the fairness and thoughtfulness of the persons who make the ratings. Moreover, only through a comprehensive and flexible system, administered by persons with appropriate sensitivity, judgment, fairness, and understanding, can the unique strengths and weaknesses and the special contributions of given faculty members be appropriately recognized.

It is also important to consider that evaluation of teacher effectiveness can and should be based, not only upon student ratings of teachers, but also upon other sources and types of data. Among the types of data which might be presented under certain circumstances as evidence of teaching effectiveness are:

1. Evidence of student achievement, e.g. based upon pre- and post-scores on specially designed or selected achievement tests (see Appendix A); or based upon representative evidence of achievement by students, e.g. short stories, art works, term papers, reports, computer programs, etc.

2. Evidence of course development, e.g. based upon submitted documents or samples of learning activity packages, student handbooks or manuals, media presentations, written assignments, computer exercises, specified objectives, etc.

3. Written and signed testaments from students, colleagues, administrators, etc. documenting special teaching skills, efforts, achievements, etc.

4. Written reports by qualified evaluators (e.g. on a departmental evaluation committee) who might observe performance in the classroom and/or conduct interviews concerning course objectives, methods, etc.

5. A written statement by an individual instructor concerning his teaching objectives, methods, course development, accomplishments, etc.

6. Research which pertains directly to teaching and course development at NCCU, e.g. a study reporting results of a teaching innovation or a report of a project in which students participated materially.

In assessing a teacher's effectiveness, consideration must also be given to various intrinsic and extrinsic factors which can affect teaching performance. Among these factors are: teaching load -- number of students, number of preparations, number of contact hours, etc.; teaching experience and qualifications; nature of the student population in terms of ability, motivation, etc.; level of students -- lower division, upper division, graduate; level of course -- introductory or advanced; other responsibilities and commitments of the instructor e.g. administrative

or other non-teaching duties, assignments which take instructor off-campus; extent of previous development of course materials (e.g. new course vs established course), etc.

With consideration given to the total problem of evaluating teacher effectiveness, particularly to the points raised above, the following specific procedures for obtaining and using student ratings of teachers are suggested as alternatives, from which one or more appropriate instruments and a procedure might be selected and/or adapted. The alternatives include student rating procedures and a procedure for ratings by qualified observers.

This report does not include instruments or procedures for evaluation of non-teaching activities. Instruments and procedures for faculty self reports of annual activities and for overall appraisal of faculty performance have been included in other reports.

IMPLEMENTING RESOURCE REQUIREMENTS PREDICTION MODEL 1.6 (RRPM 1.6)

James Nichols
Concord College, Athens, West Virginia

Robert E. Reiman
Appalachian State University

A workshop concerning implementation of RRPM 1.6 was conducted for the participants in the 1973 NCAIR Forum. The workshop was premised upon the assumptions that implementation of RRPM 1.6 was viewed as a desirable action by senior administrators and that the personnel in attendance had been directed to implement the model as quickly as possible. Having set the stage for a "nuts and bolts" level presentation, comments were directed at: (a) determination of a general sequence of steps for the technical implementation of RRPM 1.6; (b) discussion of various decisions required regarding structuring and data elements in the model; (c) completion of necessary coding sheets.

The following steps were explained as a general sequence for the technical implementation of RRPM 1.6: (1) Establishment of the institutional framework; (2) Production of Induced Course Load Matrix data and degree program enrollments; (3) Calculation of teaching data per discipline level; (4) Calculation of faculty data per discipline; (5) Determination of support staff data per discipline; (6) Allocation of other direct cost line items to disciplines; (7) Identification of non-instructional cost centers.

In discussion of these general steps implementing RRPM 1.6, decision areas concerning: (a) the number of fields of study to be identified; (b) the level of organizational structure to which the model would be applied (disciplines/departments/divisions/colleges); (c) whether to use FTE or head-count degree program enrollments; (d) to what extent to go in allocating other direct cost items to instruction; (e) other areas for decisions concerning implementation of the model.

Dr. Nichols discussed in some detail a relatively simplified manual means for determining teaching data per discipline level and faculty data per discipline which were identified as major areas of difficulty in implementing RRPM 1.6 in an analytic mode.

In summary, it was indicated that the problems connected with implementing RRPM 1.6 in either an analytic or projective mode were substantive. However, these problems when recognized and dealt with in an organized manner were described as being relatively easy to overcome in a short period of time.

NORTH CAROLINA ASSOCIATION FOR INSTITUTIONAL RESEARCH

BUSINESS SESSION, 1973 ANNUAL MEETING

MINUTES

The meeting was called to order by Dr. Robert F. Reiman at 11:30 a.m. on November 1, 1973 as the closing session of the 1973 annual meeting in Charlotte, North Carolina. Dr. Reiman expressed gratification at the interest indicated by the attendance and general attitude of the first annual meeting. He stated that he hoped that the Association would continue to receive active support by its participants.

Mr. Robert Ussery presented the 1973 Membership Report. He reported a total of 71 active members, 55 individual, and 16 institutional, and that 94% of the active members were charter members.

Dr. Aaron Hyatt presented the Budget Report, a copy of which is attached.

Dr. Edwin Chapman, Chairman of the Nominating Committee presented the Nominating Committee Report. Placed in nomination by the Committee were:

Robert Reiman	President
Gloria Scott	Vice-President
Robert Ussery	Secretary
Aaron Hyatt	Treasurer
Stover Dunagan	Member-at-Large
Ed Nelsen	Member-at-Large
Norman Uhl	Member-at-Large

Dr. Reiman accepted that report and nominations and thanked the committee for its work. The floor was opened for further nominations to the first four offices. There were none. A motion was made, seconded, and passed to elect the first four candidates by acclaim. Charles Brown was then nominated from floor for member-at-large. A vote was taken which resulted in the election of Ed Nelsen and Charles Brown as the Member at-Large.

The 1974 officers are:

Robert Reiman	President
Gloria Scott	Vice-President
Robert Ussery	Secretary
Aaron Hyatt	Treasurer
Charles Brown	Member-at-large
Ed Nelsen	Member-at-large

Under other business, Dr. Reiman stated that he would direct a survey of the membership to elicit preferences concerning future meeting formats and topics, and to request an evaluation of the annual meeting from those who attended.

Dr. Ben Romine suggested a survey of Institutional Research staffing patterns and an inventory of Institutional Research activities. Dr. Reiman said that this had merit and would be considered.

Mr. Charles Brown suggested that alternate categories of membership be established. Dr. Reiman directed that this be considered by the membership committee and that recommendations be made to the executive committee.

The meeting was adjourned at 12:30 p.m.

Robert M. Ussery
Secretary

FINANCIAL STATEMENT FOR NCAIR - November 1, 1973

STATEMENT OF INCOME

February 21, 1973		$ 175.00
February 28		170.00
March 12		115.00
April 2		70.00
April 27		95.00
August 3		35.00
September 20		5.00
September 27		10.00
September 28		55.00
October 9		70.00
October 16		80.00
October 22		45.00
		$ 925.00
Conference Income		265.00
		$ 1,190.00

STATEMENT OF EXPENDITURES

April 13, 1973	Printing (Letter Heads)	$ 22.05
August 4	Printing & Postage (Forms)	14.04
August 10	Printing (Proceedings)	322.00
September 20	Printing (Charter Membership Forms)	25.50
October 31	Entertainment	30.00
		$ 413.59
BALANCE REMAINING		$ 776.41

Submitted by

Aaron Hyatt
Treasurer