Present evaluation techniques depend heavily upon student input, with little or no reference to the circumstances under which faculty work. Using the Fried Transdisciplinary Model in evaluating faculty would do much to alleviate this situation. Questions about quality of performance would still be considered under the Task Requisites Zone of the Fried Model. However, the Institutional Responses Zone would force consideration of the working environment, and the amount of control held by the faculty over their situations. (WBC)
An Operational Systems Approach
Toward the Evaluation of Library School Faculty:
The Fried Transdisciplinary Model of Technological and Social Organization Applied to the Academic Institution's Policies and Practices Related to Faculty Performance and Working Environment

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Florence E. DeHart
An Operational Systems Approach Toward the Evaluation of Library School Faculty: The Fried Transdisciplinary Model of Technological and Social Organization Applied to the Academic Institution's Policies and Practices Related to Faculty Performance and Working Environment

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Florence E. DeHart
Associate Professor
School of Library Science
Emporia Kansas State College

Accountability is a term well established among today's social concerns. In past years, as well as at present, students, administrators, and faculty have been seeking appropriate means for evaluating faculty for tenure, promotion, and annual increments. Two books by Richard I. Miller on faculty evaluation contain extensive bibliographies on the subject: Evaluating Faculty Performance, San Francisco: Jossey-Bass, 1972; and Developing Programs for Faculty Evaluation, San Francisco: Jossey-Bass, 1974. The American Library Association document, "Standards for Accreditation" for master's degree library school programs, identifies sources of evidence for faculty quality in Section III, pp. 6-7.

THE FRIED MODEL

Jacob Fried and Paul Molnar constructed "A General Model for Culture and Technology" (Technological Forecasting and Social Change, vol. 8, 1975, pp. 175-188) that may usefully be applied to evaluation of faculty. Fried presented a simplified version, "A Transdisciplinary Model of Technological and Social Organization," at the 1976 Annual North American Meeting of the
Society for General Systems Research. Using the simplified model as a guide, we may view the evaluation of faculty performance in terms of the TASK REQUISITES ZONE (Components 1,2,3) and the corresponding ORGANIZATIONAL RESPONSES ZONE (Components 1,2,3).

Organization comes about by imposing constraint on the interacting elements that are part of an ongoing process. Constraint has to do with complexity, routine procedures, lack of randomness, number of multiple units non-interchangeable in action, completion of tasks requiring actions spread over space and time sequentially, multiple sources of inputs, etc. The Fried and Molnar article cited above is particularly useful for its explicit development of "constraint" and its measurement. A major aspect of constraint for the library school faculty member is the following: the faculty member may have little or no control over certain aspects or phases of his/her activities, yet he/she is held accountable for successful fulfillment of these activities in tenure, promotion, and annual increment reviews.

When some variables in the model increase or decrease in degree of constraint and fail to produce resonant changes in the others, nonviability or less effectiveness in undertakings results. Analysis of the degrees of constraint imposed on the interacting elements within and between both Zones (TASK REQUISITES and ORGANIZATIONAL RESPONSES) is a helpful before-after measure in determining an initial and final organization state. It also serves to specify which variables need to be manipulated to accomplish a desired outcome and successfully cope with change.
Constraint may be measured on the following scale offered in the Fried model: L - Low; ML - Medium-Low, M - Medium, MH - Medium-High, H - High. Each of the two Zones has three Components, or minimal analytic units that establish an organizational pattern of constraint. These Components will be defined later in this paper.

OBJECTIVE OF THIS PAPER

This paper proposes, application of the Fried Transdisciplinary Model of Technological and Social Organization to the academic institution's policies and practices concerning faculty performance and working environment. It aims to suggest design for an operational systems approach toward the evaluation of library school faculty, the group to which this paper directs its attention. The paper rests on the basic assumption that faculty members have responsibilities, but like administrators and students, they also have rights, individually and collectively. Students and ultimately those whom students serve would greatly benefit from more conscious, deliberate attention to and analysis of the components of institutional support for carrying out faculty tasks. Application of the model would provide as an end product the information needed for more accurate and equitable evaluation of library school faculty.

Up to the present time, the TASK REQUISITES ZONE of the Fried model appears to be the Zone primarily considered in the process of faculty evaluation. How well has the faculty member carried out his/her tasks? Components treated explicitly in the
INSTITUTIONAL RESPONSES ZONE of the Fried model are more likely to receive much less consideration. This practice may well produce distortion of the evaluation process, for there exists ongoing interaction within and between the two Zones. The interaction represents a total system comprised of faculty performance within particular faculty working environments.

The "Standards for Accreditation" (p. 7) incorporate this point on a general level: "Allocation and distribution of faculty work loads should result in assignments related to the interests and competencies of individual faculty members. . . . Work loads should be distributed in such a way as to take into account the time needed by the faculty to engage in student counseling and institutional and professional activities in addition to teaching and research." Accredited library schools meet the "Standards for Accreditation" to varying degrees. Application of the Fried model may well be in order, however, for possible improvement in any situation. In doing so, the value assigned to each Component, or variable, would be derived from the empirical situation under study to allow for the individual differences among graduate library schools. Values are not derived from a predetermined absolute scale. Thus, faculty can be evaluated in the perspective of their actual working environments rather than according to idealized standards that may not presently be in operation. Following are a few examples from each of the Components of the two interrelated Zones. They represent a selection from many possible examples.
TASK REQUISITES ZONE

The first Zone is the TASK REQUISITES ZONE. It consists of the faculty member's obligations in fulfilling library school objectives. Task requisites are described in measurable terms by analysis of the degrees of constraint imposed on the interacting elements. The Zone has the following three Components, paraphrased from the "Transdisciplinary Model."

Component 1 - Dimensional: What are the size, quantity, physical characteristics, or qualitative conditions that describe the desired end results (goals and objectives fulfillment) and products (course syllabi)?

The faculty's collective task to which individual faculty members contribute is the following: maintenance of a graduate library school program that meets the American Library Association "Standards for Accreditation" at least minimally and preferably to the fullest possible degree.

Component 2 - Modification: What processes must be carried out on elements, behaviors, factors, and "raw" materials before useable finished products and desirable ends result?

A rough definition of the faculty member's task follows: coordination of various activities that fulfill the library school's general goals and specific objectives. The activities might include teaching that preferably receives outstanding teacher ratings from students, as well as approval from administrators and peers; assisting students generously outside of class time, including those who have a language problem; ad-
vising students regarding their library school program planning; participation in the academic institution's governance (committee or other work); participation in the library school's governance (committee or other work); administrative activity such as writing references for students, or planning workshops and institutes; professional library association membership and activity; other professional library-related activities; community service; application for research grants; research; publication; creativity in bringing new ideas to the program; attendance at continuing education functions; and ordering appropriate materials for the library collection along with making every effort to see that they are accessible to students at the time needed.

Component 3 - Space/Time: How many space and time conditions must be coordinated to bring all needed elements, behaviors, factors, and "raw" materials together?

This component includes such things as preparing courses in time for a new semester in terms of when the professor was notified that he/she would be teaching them; meeting grant and institute application deadlines in terms of the notification date; coping with distances to extension course locations and distances from conference cities and research materials not obtainable through interlibrary loan; and managing with available space in classrooms, labs, and offices for maximum service to students.

ORGANIZATIONAL RESPONSES ZONE

The second Zone is the ORGANIZATIONAL RESPONSES ZONE. It
consists of the institution's facilitation of faculty performance. Organizational capacity for response is measured by analysis of the degrees of constraint imposed on the interacting elements. The Zone has the following three Components, paraphrased from the "Transdisciplinary Model."

**Component 1 - Available energy (action units), or the effectiveness of the system in terms of consumption of energy to produce outputs (Operational level):** What are the organizational characteristics (number and kind) of the internally differentiated units through which energy is available that is channeled into work activity? Single, multiple, homogeneous, or heterogeneous? (Units may be men, tools, machines, resources.)

For a library school faculty, this Component treats the number of staff, their capabilities and abilities; available in-service training programs; sufficient support staff of various kinds, including library and A-V services; needed computer services; equipment; and adequate budget, including funds for faculty salary. Much can be said about the positive aspects of institutional support for faculty in these matters. In some situations, however, deficiencies may be unearthed that desirably would be corrected.

For example, does each faculty member know exactly what is expected of him/her and in what particular areas of his/her potential contributions? Are the faculty member's teacher rating forms given the usual weight when the faculty member has taught
a course outside his/her specialty for the first time because of a particular need in the program at that time? Or when he/she has taught a course for the first time that he/she has never taken? If a faculty member receives poor teacher rating forms, or performs poorly in any aspect of the work, are in-service training opportunities provided?

Further, is the secretarial pool available to faculty able to cope at a high level of quality with the work faculty members generate at the times when faculty need the work done? Does faculty scheduling permit the provision to the secretarial pool of work to be done sufficiently in advance of the time that the work is needed? Are local research grants available for small projects or as matching funds when required to obtain larger grants from off-campus sources? Do substantial inequities exist in course load? Are funds available to correct inequities in salary? These may remain from former years when a library school professor could in some cases set his/her price at quite a high level. A perfect balance among faculty loads and equitable salary distribution according to qualifications and rank may never be achieved. However, the fact that perfection can never be reached need not remove responsibility to aim for the most supportive, fair employment conditions possible. This is especially important today because expectations from faculty for tenure and promotion may be quite higher than those imposed on the already tenured faculty in the higher ranks.

Component 2 - Control (Policy level): What kinds of managing
formats are available to program the activities of the action units that provide and channel energy? (Elaboration of organizational formats when tasks require more complex coordination, a greater amount of managerial intervention.)

The "managing formats available to program faculty activities" have a central characteristic: certain circumstances surrounding the faculty member's activities not only in the academic institution but also off-campus are operative over which the faculty member has little or, in some instances, no control, or that reduce the autonomy of faculty performance. This in itself, if faced realistically, need not be a problem. But what is problematical is that these factors are among those on which the faculty member's performance is judged. These instances, elaborated on below, may happen just often enough to cause morale problems on the part of the faculty members affected. In addition, faculty know that they potentially face dilemmas of this nature at any time. A shifting sand lot rather than a hardwood floor more realistically describes the underpinning circumstantial environment of the faculty member's work.

What are these problematical "managing formats" that program the faculty member's activities? "Students" constitute one of these. Students fill out the professor's teacher rating forms. The faculty member is expected to obtain good, preferably high ratings. As a result, he/she may be very much tempted to teach to the form and in a fashion to obtain the high ratings expected whether or not most appropriate for long-term value to the student. For example, the form usually contains
something to the effect, "Explains material clearly at all levels." When a professor has students in the class who may have a language problem, short attention spans, difficulty in grasping complexity, or who find new, challenging material threatening, he/she jeopardizes himself/herself by taking on an explanation of a complex point. Adjusting course content toward simplicity gives the professor a more realistic fighting chance at a high rating on this point.

The faculty member might stick to his/her principles and teach whatever course content he/she feels the students need for effective performance in the field. He/she might explain subject content as clearly as possible and let the chips fall where they may. But the faculty member may then find himself/herself caught in a double bind outside his/her control, where likelihood of high student ratings is not consonant with developing personnel who can handle new and challenging situations. If the faculty member's ratings are not high on the point, "Explains material clearly at all levels," other ratings may not be high as well through a carry-over effect. Students who do not understand subject content often feel threatened and defensive. The reward for the professor's holding on to his/her high principles in cases where these may quite likely ruin chances for high ratings may be a denial of tenure, promotion, or of a more substantial merit (irony!) increment.

Another problem with student rating of professors is credibility when receiving highly favorable ratings the faculty member knows he/she does not deserve. At one time, I taught a
course in a subject I had never taken a course in myself. There was not time to prepare adequately either before or during the course, and I did not know the subject matter well at all. Nor did the students know of my situation of unpreparedness which might evoke pity. But I received a "5", the highest rating, on "Knows subject matter" from nearly every student in both sections of the course.

Another problem with student rating of professors has to do with the tenet of good management that a worker not be given orders by more than one source. But the professor has many masters in the students. Are interpretation and guidance offered the faculty member when he/she receives contradictory mandates within one set of teacher rating forms, such as "Make the course more theoretical" and "Make the course more practical"?

"Research" is another managing format that programs faculty activities. In a library job, a librarian is requested to develop certain activities, or conduct feasibility studies. The researching job has been assigned to the librarian, or approved at his/her suggestion. He/she does it and hopefully receives appropriate recognition. This is not usually the case for the professor, unless he/she is serving on a committee that is undertaking a research project, or he/she is helping to implement a library school grant. The professor may well need to attempt free-lance research. This in itself can be much more difficult outside a given situation that requires a particular piece of research to be performed. In addition, he/she may spend many hours working through an excellent idea for a research design
including checking whether the research has already been done. Nonetheless, his/her idea may appear in the next issue of a journal in the form of a completed research report. Nothing that the professor does is ever wasted in a sense, yet he/she cannot list this work on the vita. The librarian who finds that his/her research has already been done may proceed to apply it to the situation at hand.

"Publication" is another managing format that programs faculty activities. In addition to the delays sometimes encountered in receiving word on one's manuscript, along with the delays in seeing the manuscript in print after it has been accepted, publication can be a somewhat artificial and arbitrary managing format in certain circumstances. Results must be marketable or likely to be accepted by the journal to which the manuscript is aimed. Thus, circumstances beyond the faculty member's control may determine what he/she researches, the subjects treated, the ideas conveyed, and the length and style of the report. The professor may feel caught in a double bind between proceeding in a way most likely to result in additions to his/her publications list and the pursuit of what he/she perceives as needed research which may result as well in a format inappropriate to usual publication requirements. Interdisciplinary research, in particular, may prove difficult to place. Manuscript readers may be displeased by use of terms and concepts from another field, however well defined and however useful the application.

"Committee appointments and chairpersonships" are another
of the managing formats that program faculty activities. These are an expected contribution of faculty to the graduate library school program and the profession. They are also useful for establishing contacts that sometimes result in requests for a journal article. However, committee appointments and chairpersonships may be made in a way that could just as easily have had a different outcome. For example, there may be too many volunteers for available committees. Some not appointed may have proved to be as well or better qualified for the appointment. One professor reports having lost the headship of an association by a drawing to break the tie vote. This area is treated here not as a criticism of how committee appointments are made but rather to illustrate that faculty work tends to be characterized by lack of direct control on the part of the faculty member in obtaining the work or by a reduction in the autonomy of faculty performance.

Component 3 - Boundary: What are the limits of time and space within which the available "programs" of activities of the action units are affected? (Including scheduling.)

For the library school professor, this component refers to the time allotted him/her in available working hours and also to the physical space allotted him/her for various purposes. Time for the many tasks to be performed, including research, committee work, keeping up with the literature, as well as for the extremely important one of class preparation is a possible source of frustration for the professor. Particularly where a school
considers an open door policy for students to be a major strength, the faculty member may spend a great deal of time with students. He/she may well feel that a student cannot be turned away from the door. "Is available to students" may be a part of the teacher rating form. If the professor simply must get certain work done and works at home or elsewhere, the absence may be unfavorable to the image. Other items on the form may receive higher marks through a carry-over halo effect of the students' seeing the professor as one who tries to be very helpful.

SUMMARY

Each component in the TASK REQUISITES and the ORGANIZATIONAL RESPONSES ZONES can be assigned a measure on the scale indicated earlier in this paper according to the amount of constraint involved. In this way the ongoing condition can be determined. A major aspect of constraint for the library school faculty member is that evaluation of the professor for promotion, tenure, and annual increment takes place in certain areas over which he/she can exercise little or no control, or that reduce autonomy of his/her performance.

Faculty evaluation according to the Fried model would direct attention to these questions and would help answer them: What kinds and degrees of constraint or lack of constraint are required in ORGANIZATIONAL RESPONSES to cope with particular kinds and degrees of constraint in TASK REQUISITES in particular library school situations? What changes are required in what components of both Zones to effect needed improved outcomes in faculty efficiency and effectiveness? What alternatives are
Another dimension to assessing faculty performance emerges. The Fried model, when applied to the complex process of evaluating faculty performance, facilitates analysis of the interactions involved within each Zone and between the two Zones. The model is a tool for diagnosis and improvement of faculty performance that simultaneously considers faculty work environment both on and off campus and instructional support.

This paper has suggested that it is not unprofessional for faculty to assert rights to adequate control and institutional support of their work in aspects on which their performance is being judged. Application of the Fried model may be capable of providing a more accurate assessment than is currently obtained through traditional rating procedures which tend to concentrate on faculty performance responsibilities to the neglect of faculty rights. The magnitude of the problems in the ORGANIZATIONAL RESPONSES ZONE suggests that this area may require major reassessment and more elaborate organizational formats. Faculty tasks appear to require more complex coordination than is presently available under the various chance-related influencing factors reviewed in the paper. Another look at the various aspects and types of activities on which faculty members are presently judged may well be in order and may well inspire subsequent revision.

Some faculty members will perhaps never do much more than complain. Some opponents of faculty will perhaps never cease persisting that faculty have only a six-hour work week when they
teach six credits of course work per week. Application of the Fried model could help relieve personal tensions and anxiety and diminish aggression on the part of all individuals concerned. Its use could shift attention instead to the tasks at hand and the institution's responses to the requirements of the tasks.