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Scientific Management in Higher Education: Concerns and Using Collaborative School Management to Improve Communication

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ALTHOUGH prevalent in contemporary higher educational administration, the philosophy of a "scientific" approach to college/university management is, at best, questionable. The movement toward a "scientific" approach to education can be was traced back to the late 19th century to the efforts of James Cattell. However, it was Frederick Taylor (1911) who really provided the impetus for its application to education in the 20th century (Campbell, Fleming, Newell, & Bennion, 1987). Such an approach emphasizes a unity of command, scalar chain, centralized decision-making, detailed work instructions, specialization of tasks, predetermined rules, and formal communication (Campbell et al., 1987, Duttweiler, 1988; Morgan, 1989; Reich, 1983). Although Taylor did not coin the term "scientific management," he nevertheless made a significant contribution to the ideological underpinnings associated with this concept (Watkins, 1986).

Within the organizational context, Taylor believed that there was "one best method" that could be used to conduct job-related tasks. Specifically, it was management's responsibility to develop standard operating procedures stipulating how work should be conducted and it was the subordinate's responsibility to fulfill managerial desires (Campbell et al., 1987; Reich, 1983). The image became that of organizations operating in a "topdown" manner as

to accentuate management's ability to plan, command, and control all aspects of subordinates' behavior as well as productivity (Morgan, 1989).

During the early part of the twentieth century, Taylor's ideals not only influenced industry but were also appealing to American educators (Campbell et al., 1987). At the time, schools were undergoing rapid changes in terms of enormous population growth. With the end of World War II and the return of college age servicemen/women, the educational clientele took on a new and different face. As changes in society occurred, so did changes in educational practices. Educational institutions began to function not only as "meccas" of higher learning but also as research and service resources available to meet new and increasing community needs. The "aristocracy" of higher education began to yield to the supply and demand of it's taxed based public. Commensurate with such pragmatics of "educational reform" came a new voice of public concern. Efficiency and accountability became the buzz words by which to measure educational functioning (Campbell et al., 1987). Educational administrators began to emphasize the "business" of operating higher education. Such "business" focused upon accounting procedures, budget preparation and justification, record keeping, and reports of activities, to mention but a few. With the advent of computer technology in recent years such issues have been exacerbated even more.

In response to such changes educational administrators looked toward Taylor's ideals as a viable means of managing school operations. Such an approach offered the "prospect of lower costs through increased efficiency and increased control of workers by management" (Watkins, 1987, p. 89). As Campbell et al. (1987) have noted: "Taylor's concepts have continued to shape the character of school administration in the sense that scientific management's presence can still be seen in the practices of central offices throughout the country" (p. 41). As such, Cohen and March (1986) have assigned colleges and universities to a class of organization that can be referred to as "organized anarchies."

This paper, therefore, explores problems associated with using scientific management ideals as a means of governance in higher education. Attention is also directed to how scientific management can be changed by utilizing the Collaborative School Management model (Caldwell & Spinks, 1988, 1992) as a means of facilitating communicative interplay between administrators and faculty members.

PROBLEMS WITH SCIENTIFIC MANAGEMENT IN HIGER EDUCATION

Hierarchical Control

Within the spectrum of higher education, it is reasonable to assume that a degree of hierarchical control permeates (McCroskey, 1990). That is, every member reports to some higher authority and receives direction from that authority (Perrow, 1990).

Such a purview tends to negate the distinction made by Millett (1980) between "management" and "governance." According to Millett (1980), management refers to work planning and work performance while governance revolves around decision-making about purposes, policies, programs, and resources. While the faculty member is primarily a "manager of learning" (p. 149) the issues of management and governance are very much correlated. The faculty member, then, is involved in roles of both management and governance requiring participation in both endeavors. Noting that faculty members are the most important managers (because of their responsibility in the learning process) in a university system, Millett (1980) goes on to say that:

> this role should recognize the primary concern of faculty members in the management of learning and should provide a participative status for faculty in the consideration of university-wide matters of governance.

> Such a prescription affords faculty domination in formulating purposes, policies, programs, and budgets relating to instruction, research, and public service, while involving faculty members as *one* important group in formulating purposes, policies, programs, and budgets relating to the university as a whole. (p. 154)

Not confining himself to professional staff participation, Millett (1980) also contends that "the support staff is too important a group to leave outside any structure and process of internal governance" (p. 165). This position was supported by Bensimon and Neumann (1993) who maintain that "it must be recognized that when organizations fail to bring the voices of those who are at the margins to the center, the organization suffers" (p. 18).

Contributing to the limitations of a scientific management approach to higher education has been the prevailing models (e.g., political systems, bureaucracies) of higher education leadership. According to Bensimon and Neumann (1993), such models are inadequate because they "cast leadership unequivocally as the quality of the individual rather than of the group" (p. 17). In essence, then, the structure of higher education is analogous to a pyramid with the top controlling major aspects of operations. As Weber and Karman (1989) suggest: "the structure in higher education is dictated by function, purpose, and goals identified by the administration" (p. 50). Therefore, due to the centralized nature of the hierarchy, several dysfunctional consequences are noted.

One dysfunctional consequence of hierarchical control is that inovativeness is stifled at the subordinate level (Morgan, 1986; Perrow, 1990). Due to the standardized nature of many higher education institutions (Duttweiler, 1989) ideas for improvement usually have to go from one level to the next while simultaneously making sure existing procedures and policies are followed. By the time an innovative idea or suggestion is enacted upon it may be too late for successful implementation. Hence, structural standardization not only reflects hierarchical control but appears to impede the notion of ideas coming from anyone at anytime (Peters & Waterman, 1982).

Another dysfunctional consequence of hierarchical control concerns the manner in which decisions are made. Regardless of the linear flow (i.e., top down or bottom up), most major decisions as to institutional goals and resource allocation are governed by the upper levels of administration (Duttweiler, 1989). Granted, the lower levels do have routine input in the decision making process, however, most major decisions are made by those in the upper levels of the hierarchy (Morgan, 1986; Perrow, 1990). For example, a chair would suggest how much he/she needs for budgetary matters concerning travel, equipment, printing expenses, and so forth. Nevertheless, the administration makes the final decision on such important matters.

Troublesome with hierarchical control of decision making is that the upper levels of administration are for the most part disassociated with actual specialized mechanics of operations (Reich, 1983). Specifically, hierarchical decisions could be made without realizing the ramifications such decisions have on departmental operations. If a decision is made by upper administration to fund departments equally in terms of travel allocations, it could severely harm a department who is heavily involved with scholarship versus a department that is not involved. The point of our argument is that departments have individualized needs in terms of resource allocations. Nevertheless, some decisions are made by the upper administration concerning needs of the institution as a whole. Essentially then, decisions as to the needs of those lower in the hierarchy are predetermined by those at higher levels. Other characteristics associated with hierarchical control include decisions being implemented on the spot with no subordinate input, and information suppression (Perrow, 1990).

Fitting In

In business settings, the "management knows best" maxim implies that management does the thinking and subordinates do what they are told without challenging the status quo (Morgan, 1986). This approach to management is also countenanced in the academic arena exemplified by verbal directives such as "you shouldn't do end runs to the dean," (a chair's comment to a faculty member) "as we discussed," (translated--you should have done what I told you to do), and so forth.

James McCroskey (1990) wrote a provoking essay on how new college/university members should fit into an academic department. The essay addressed areas dealing with academic freedom, departmental history, and curriculum matters. An important theme emerging throughout this essay centered on the premise that control is dictated by the structure of academic departments. That is, control in academic departments comes from faculty members higher in rank and whose opinions are more valued than faculty members lower in rank. Moreover, the author suggests that senior faculty members expect new faculty members to "pay their dues" as a prerequisite for being accepted. Consequently, McCroskey (1990) recommends that in order to fit into the department a new faculty member should "go along with whatever is the prevailing view" (p. 477) and "those that go along, get along" (p. 474).

We do concur with McCroskey in that a new faculty member who decides to "rock the boat" will probably be labeled as a trouble maker and one eventually subject to isolation or dismissal. We also agree that a new faculty member should make efforts to get along and establish relationships with others. Nevertheless, doing such to the point of agreeing with and carrying out everything mandated by those higher in rank ("management knows best" mentality) seems counter productive to fostering a progressive communication environment. As Redding (1985) suggests: "Could it not be argued that the quality of decision making is generally improved by open debate and dissent, and that therefore maintaining freedom of dissent should logically enhance the health of the organization?" (p. 251).

It is our opinion that the "health" of an academic organization can be enhanced by a new faculty member who expresses dissent because, if done properly, that individual may offer new insight to old problems and be less likely to mask their true feelings or opinions. Note here we are talking about a new faculty member who disagrees with the departments way of conducting business while having something better to offer rather than just a member who constantly complains.

Paper Bureaucracy

The paper bureaucracy is another burdensome aspect of scientific management that exists in higher education. Operationally, paper bureaucracy encompasses but is not limited to detailed memoranda, committee reports, annual reports and acquisition forms.

Examples associated with the paper bureaucracy abound in higher education (McKenzie, 1983). The apparent simple task of having personal business cards developed can be a horrendous experience. First, one must complete a request form accompanied by a signature of approval from the chair and dean. The request is then sent to a higher level department for final approval. However, prior to final approval, the recipient must check another form stating no additional changes. Finally, the request is sent back to the printing department for execution. In all, it took seven days to accomplish this endeavor. Attending an Arts and Science meeting (or other governing body) further exemplifies the paper bureaucracy. A substantial portion of any meeting could involve assessing lengthy documentation as to curriculum and/or policy changes. We have experienced simple grammatical changes in written discourse taking thirty minutes to resolve!

There are numerous other examples we could have offered but of greater importance concerns specific inefficiencies linked with the paper bureaucracy. We believe the paper

bureaucracy expedites interpretation and distortion problems. For instance, a faculty member who prepares a written report in which the content was revised by his/her chair, and revised again by the dean, and so forth. Therefore, the outcome of this serial process (Daniels & Spiker, 1991) could result in the original senders message connoting a completely different meaning than originally implied.

From a top-down perspective, any written report risks being misinterpreted due to the recipient failing to understand the literal meaning associated with the senders message. As Daniels and Spiker (1991) note: "the greater the number of steps or linkages in a serial reproduction chain and the greater the perceptual differences among participants in that chain, the more likely it is that some form of message distortion or filtering will occur" (p. 95).

Prolonging feedback is another inefficiency affiliated with the paper bureaucracy. Determinative follow up on written reports is limited due to administrators and faculty members being inundated with a plethora of items such as annual reports, budget justifications, curriculum needs, and policy changes. Moreover, important written documents may be filed without receiving appropriate action, labeled as "lost in the system" or simply not acknowledged. If written discourse does get processed, it may take weeks, months or years for the sender to receive feedback.

In addition to distortion and feedback concerns, the paper bureaucracy fosters an impersonal environment. At several institutions, congratulating faculty/staff members for meritorious efforts are conducted via written rather than oral means. Usually this entails each person receiving the same written correspondence. Impersonality is further demonstrated when responses to proposals are in written form instead of orally addressing important issues.

Thus far, the discussion has centered on how the paper bureaucracy component of scientific management creates fundamental problems in higher education. By no means are the authors advocating that written discourse is of little importance. At times it is necessary to quickly disseminate important information about institutional related matters. However, we firmly believe that excessive accentuation is directed toward written means of communication, especially in higher education.

The proliferation of written discourse curtails operations because time is spent interpreting jargon, processing forms, and due to shear volume, limits quick follow up to messages. Like scientific management, the paper bureaucracy tentacle thrives on standardization. Once written, completed discourse must go through the proper chain-of command for requests to be implemented. Taking short cuts is strictly prohibited in a system that mandates a rigid standardized set of procedures to accomplish work-related endeavors. Consequently, the outcome becomes that of focusing more on following written procedures rather than focusing on human needs.

Committees

At one juncture or another in our professional careers most of us have participated in faculty governance more commonly referred to as committee work. In addition to teaching and conducting research, considerable time is spent working with our fellow colleagues on committees concerned with issues regarding student instructing and athletic governance, to matters of faculty promotion and tenure. Indeed, committee work is an integral component in higher education because it can (not in all cases) foster information exchange and enable members to collectively participate in making decisions.

Despite the apparent advantages, from a scientific management perspective there are several shortcomings associated with committee involvement. Particularly evident in institutions of higher education is that committees operate in a piece-meal manner thriving on fragmentation rather than integration (Duttweiler, 1989; Wirth, 1982). For example, mem-

bers of an academic conduct committee probably know little, if anything, about decisions being made by members of a student life committee and vice-versa. Essentially, committees operate in a linear mode with little collaboration or understanding as to how other committees operate. Failing to understand the "total picture" could impede efforts to resolve campus related concerns and lead to faulty decision making. Such a concern has been observed by Bensimon (1991). In a study of college presidents and their administrative groups, the author found committee members maintaining that "We understand that what each of us [committees] does affects the other. But communicating that outside [to other committees] we are very bad about doing that" (p. 41).

Committees are also fragmented in the sense of separating the planners, doers, and those that decide (Wirth, 1982). Based on our own experiences it is rare to serve on a committee that is given complete autonomy in the three areas previously mentioned. For example, an academic conduct committee can make a proposal that is subject to approval from the director of student life, followed by approval from the vice-president for academic affairs.

Aside from being fragmented, committees tend to be a microcosm of a larger intact hierarchy. For instance, among institutions of higher learning, many committees have a chair, vice-chair, subcommittees, et cetera. A potential confounding problem exists because members have to go through the proper channels in order to convey information or make a decision. Moreover, due to following proper committee channels the potential exists for communication to be distorted. Further complicating the issue of fragmentation is the notion of representation by categorization. That is, in larger institutions departments are frequently grouped according to social sciences, humanities, biological sciences, et cetera. In such instances, the larger departments within these groupings are often the ones most frequently represented, to the exclusion of smaller departments.

Committees further exemplify scientific management ideals in that they are "planned to fit rather than disrupt the normal mode of operation, and are often too slow or too late for dealing with issues" (Morgan, 1986, p. 36). Typically, most committees operate in a fixed design manner with each working on a particular objective (e.g., committee on improving campus communications). Usually each respective committee generates a lengthy report which may be eventually shared with members of the upper administration. At this point breakdowns in communication could occur due to upper administrators experiencing information overload, misinterpreting the committees findings, and failing to quickly follow up on committee recommendations. As Millett (1980) has noted, while communication is/ should be, the lifeblood of a university as an organization, "no complaint is more commonly heard on any university campus than the complaint that there is very poor communication within the organization" (p. 124).

SYNOPSIS

This paper has discussed problems conjoined with scientific management in higher education with specific concentration directed to areas such as hierarchical control, committees, paper bureaucracy and fitting in. Nexused with this discussion were efforts to elucidate how these functional components of scientific management influenced communicative processes and outcomes. Several dysfunctional consequences were noted including but not limited to; linear control of communication, suppression of information, piece meal fragmentation, message distortion, and discouragement of open dissent. Support for our arguments were generated from descriptive reports as well as personal experiences. Nevertheless, there is a minute amount of empirical data to further substantiate earlier claims. For instance, a chapter of the American Association of University Professors (AAUP) examined faculty morale at a small southeastern university.[1] A survey was administered to 111 faculty members assessing morale in areas such as administrative involvement with academic affairs and salary distributions.

Pertinent to this paper were findings stemming from several free response questions. That is, when asked how communication can be improved between the administration and faculty, respondents suggested:

> "Eliminating most of the required reports that departments are required to send up to higher administration levels. These are a poor substitute for person-to-person contact."
>
> "By less use of a rigid chain-of-command structure."
>
> "How about direct communication? I have a phone in my office—why does a message have to go through five offices before it finally reaches me?"

When instructed to explain factors that adversely affected their morale the respondents noted:

> "Paperwork lethargy on the part of the administration at all levels (registration, personnel) frustrates and hinders the educational process rather than assists it."
>
> "Lack of recognition or utilization of faculty expertise in the planning, operation, and management of the institution."
>
> "Faculty are overburdened with a horrendous amount of committee work at the college-wide level, much of which is perceived as "busy work." It is likewise clear that all of these diverse committees do not in any way fit into a coherent plan for the institution."

Although not directed toward higher education per se, research focusing on scientific management within secondary institutions of learning has been conducted. Results of investigations have revealed that schools operating via means of scientific management affected teachers in terms of decreased loyalty, lack of participation in decision making, and alienation with their jobs (Abbott & Caracheo, 1988; Cox & Wood, 1980; Hoy, Blazovsky, & Newland, 1983; Hoy, Newland, & Blazovsky, 1977).

A New Direction

Based on the preceding literature we firmly believe the key to enhancing communication in higher education rests on changing the structure (i.e., centralized decision making, formal communication) affiliated with scientific management ideals. Such a direction has been suggested by Bensimon, Neumann, and Birnbaum (1989) who noted that "Both the interaction between faculty leaders and other faculty participants and the interaction between faculty leaders and administrative leaders should be examined" (p. 57). To this we would add that there is a need to examine the role of all university personnel, at all levels, of the university management and governing processes.

During the past fifteen years attention has focused on the need for more widespread participation in university functioning. Kanter (1983), for example, has pointed out that management that relies upon a collaborative approach to dealing with issues tend to realize results that go "beyond what the organization already knows [or to be more accurate, beyond what its leaders think they know]" (p. 29). Bensimon, Neumann, and Birnbaum (1989) have noted that "It is generally agreed that consultative and participatory process are highly

desirable in academic organizations" (p. 56). At the same time, the authors pointed out that if such efforts were to be successful then attention should also be focused upon the training of administrators in "participatory leadership skills."

To some extent, institutions of higher learning have entertained and, in some cases, instituted somewhat of a "team" approach to university management and governance. Eisenstat and Cohen (1990) have pointed out that one of the advantages of a team oriented approach to university functioning is the potential for diverse solutions due to the various competencies of the individuals involved. However, as Bensimon and Neumann (1993) observed:

> real teams are more likely to exist in small, private, four-year colleges then in large, public universities. The absence of real teams in universities may be related to the strong political nature of these institutions, to their anarchic qualities, and to their tendencies to act like adhocracies. In such institutions there may be a tendency to rely on power tactics, negotiation, coalitional dynamics, and persistence more than on collaboration. (p. 50)

Therefore, attention is now directed to explaining how the structure of higher education can be changed by utilizing collaborative school management as a viable technique for improving communication.

COLLABORATIVE SCHOOL MANAGEMENT

Collaborative School Management (CSM) involves small groups of academic members (i.e., administrators, teachers, students, community leaders) collectively working on institutional needs utilizing a management cycle that integrates goal setting, policy making, planning, budgeting, implementing, and evaluating (Caldwell & Spinks, 1988,1992). Within this model exists a policy group and program team responsible for making the Collaborative School Management cycle function. Specifically, the policy group (usually consisting of the principle or principle and senior teachers) sets goals, creates policies, approves budgets, and assesses the overall effectiveness of programs. Program teams are predominantly comprised of teachers whose tasks include developing a plan for policy implementation, preparing a budget to support a plan, and gathering data for program evaluation (Caldwell & Spinks, 1988,1992).

Theoretically, the CSM model seems akin to scientific management in that members of the hierarchy (i.e., principles) set goals, policies, and approve budgetary matters, while the teachers carry out the objectives established by the policy group. Nevertheless, the authors acknowledge that both the policy groups and program teams can include teacher representatives, school council members, and principles (Caldwell & Spinks, 1992).[2]

It is worth noting that CSM has been primarily conducted with secondary institutions in Europe, Canada, and Australia. To make CSM more conducive to higher education in the United States we believe some modifications are needed. That is, our discussion centers on using a single group to conduct the entire CSM process. Next, the planning and implementing components will be merged and referred to as plan for implementation.

Before explaining the functional components of CSM (i.e., goal setting, policy making) several important operational parameters are noted. First, Caldwell and Spinks (1988) recommend using 6-8 people to constitute a CSM group. We strongly encourage using a diversified CSM group (administrative assistant, chair, student, dean) for it enables an issue to be examined from multiple perspectives. Moreover, it may prove feasible to have multiple CSM groups working on an issue (e.g., modifying general education requirements) then having representatives from each group form an overall CSM unit. Basically then, one or

more CSM groups can operate at any given time having various degrees of membership diversity.

Unlike the limitations generally assigned to college/university committees in the scientific management format, a second important aspect of CSM concerns autonomy. A CSM group not only examines a campus-related issue but has the freedom to implement change void of having to acquire hierarchical approval. Therefore, the ability to plan, do, and decide, (Wirth, 1982) becomes the sole responsibility of each CSM group

A third operational characteristic deals with flexibility in that a CSM group can start with any component area. For example, creating goals does not always have to precede budgeting. Of greater concern is making sure all component areas of CSM get accomplished (Caldwell & Spinks, 1988). According to the authors, each component area should be accomplished with a written report of less than two pages.

Finally, the CSM group should solicit information/opinions from those outside of the group. Doing so can foster the development of new ideals relevant to any particular CSM phase (creating goals, policy making, plan for implementation, budgeting, evaluating).[3]

We have briefly highlighted some operational parameters that can be used while implementing the CSM process. Efforts are now concentrated on a more detailed explanation as to how the functional components of collaborative school management operate. For additional support, several hypothetical illustrations are included.

Creating Goals

A goal is a broad statement that expresses a desired outcome (Caldwell & Spinks, 1988). Goals are usually formulated as to reflect the beliefs and values of a particular college or university. In higher education, goals can be developed pertaining to resource allocation, institutional governance, student learning, or any other relevant topic (see Table 1 for example). When developing goals, Caldwell and Spinks (1988) suggest "that each goal and each statement of philosophy be limited to a single sentence, written as simple as possible to ensure understanding by all members of the school community" (p. 39).

TABLE 1
Goals Related to Providing Awards for College/University Personnel

A. To develop an annual award based on faculty research.

B. To create a monthly award for any member of the academic community who offers an outstanding suggestion on saving the institution money.

Note: All tables are purely hypothetical and provided for illustration purposes.

A second aspect of goal setting entails the identification of needs. Goals can be created only if the CSM group is able to determine a need exists for something to be done.

Policy Making

Policy making consists of using "set guidelines which provide a framework for action in achieving some purpose on a substantive issue" (Caldwell & Spinks, 1988, p. 90).

Pertaining to CSM, policy making included formulation of a purpose statement and developing broad guidelines. The former concentrates on intention and the latter examines the type of action that will be taken.

Referring to Table 2, the purpose or intention of the CSM group is making sure faculty are rewarded for their research abilities.[4] Next, several broad guidelines are offered which reveal the pattern of action (i.e., what will be done) to be exercised. Notice the guidelines do not specify how the policy will be implemented. Such information is inappropriate as a policy making statement and should be further reviewed in the plan for implementation stage.

TABLE 2
Policy-Making

A. *Purpose:* Crucial to a faculty members development is his or her involvement with conducting research. It would appear that some form of recognition on the institutions behalf would further stimulate a faculty members desire to be a productive scholar. Therefore, the purpose of this CSM group is to determine the manner in which faculty members shall be awarded for their scholarly research endeavors.

B. *Broad guidelines:* When considering how to recognize faculty for their research the CSM group will (a) develop criteria as to what constitutes acceptable research; (b) determine the type of awards to offer; (c) determine the number of awards; and (d) assess logistical concerns.

Plan for Implementation

The plan for implementation stems directly from the purpose statement and broad guidelines. This component of CSM addresses when and how something will be done as well who will do it and how often (Caldwell & Spinks, 1988). It further details the resources and services needed for successful implementation. A sample plan is illustrated in Table 3.

TABLE 3
Plan for Implementation

A. Base criteria for acceptable research by interviewing a random sample of faculty engaged in scholarship and by consulting existing school publications (e.g., tenure/promotion manual).

B. A faculty member having the highest amount of publications will receive a plaque, all others will receive a ribbon. The same applies to a faculty member having the most presented convention papers.

C. Have an award banquet at the end of each academic year for those faculty members who have presented at least one professional paper or who have published a scholarly article.

The preceding plan for implementation was based on providing campus-wide recognition for faculty involved with research. Indeed, this plan could have focused solely on various academic schools or departments.

Budgeting

The budgeting component of CSM is a financial translation of the resources needed to support the plan for implementation (Caldwell & Spinks, 1988). The budget consists of expenditure estimates and revenue forecasts.

Based on the preceding plan for implementation (Table 3) the budget would contain cost projections as to the amount of funding needed to acquire such things as plaques and ribbons for faculty research recognition. Financial estimates pertaining to the research award banquet would also be included. The revenue forecast section would contain information on how the money is to be generated. That is, the CSM group would determine whether money should be solicited from the administration or obtained via conducting a fund raising event.

At this juncture, we should note that budgets are not always an inclusive part of the Collaborative School Management process. For example, a CSM group examining the issue of modifying tenure guidelines would probably not have to formulate a budgetary prospectus. So pending the type of issue a budget may or may not be required.

Evaluating

Evaluation is the final component of CSM which is used to assess the overall effectiveness of an implemented project (Caldwell & Spinks, 1988). According to the authors, the assessment includes examining whether "purposes have been achieved and to what degree guidelines and plans are effective and efficient" (p. 153).

Two types of evaluation are commonly used in collaborative school management. The minor evaluation relies heavily on the opinions of those CSM group members directly involved with a project whose primary responsibility is to assess implementation effectiveness. Afterward, the results are reported on one page containing the following sections: success indicators, areas of concern, and comments/recommendations (Caldwell & Spinks, 1988, pp. 149-150).

The major evaluation generally involves collecting an extensive amount of information (with quantitative measures) used to assess the total success of all CSM components. This type of evaluation can include members from outside the CSM group. Results of the major report are reported on no more than two pages incorporating the following areas: inadequacies and problem areas, successful program outcomes, and recommendations.

The evaluation process should occur once a year. Afterward, the CSM group can then determine whether a project needs to be reexamined and in what manner.

How CSM Improves Communication

Collaborative school management is an integral approach in that members of various levels (secretary, instructor, chair, vice-president) or one level (a particular department) collectively work on resolving school-related issues. Theoretically, the integral structure of CSM can enhance communication because information does not flow in a linear manner (top down or bottom up) subject to distortion concerns. Reducing the serial process in which information travels could result in more immediate feedback to suggestions/ideas and misinterpretations being promptly clarified.

Collaborative school management also allows for decisions to be made incorporating communicative input from all members regardless of their hierarchical status. With scientific management, decision making is a centralized process conducted by those in the upper hierarchical levels of an academic institution.

Also, collaborative school management aids in reducing the paper bureaucracy. Written

documentation for each CSM component is limited to no more than two pages (total range: 5-10 pages). Documents are also written void of excessive jargon. Less emphasis on written communication enables the CSM group to spend more time orally discussing important project-related matters.

Finally, CSM can be used to transform the piece-meal fragmented manner in which committees operate. Earlier we noted that committees operate on a linear basis with little, if any, collaboration as to how other committees function. Eliminating such fragmentation entails having representatives from various committees form a collective CSM group (or plural) whose task is to exchange information (i.e., on committee matters) and disseminate it back to their respective committees.

It is also conceivable to argue that the CSM technique can replace the need for campus committees all together. CSM groups would be responsible for randomly soliciting information from faculty, staff, and students on campus related matters (i.e., tenure, curriculum) while having the autonomy to make and implement decisions. Replacing committees with CSM groups would enhance communication in the sense of issues being dealt with directly without having to be modified and/or distorted by those who have little understanding of a group's endeavors.

CONCLUSION

This paper has examined a problem that has confounded institutions of higher learning for the past one hundred years - scientific management. Although initially designed for business enterprises, American educators embraced and adopted the scientific approach to managing how schools should operate (Gronn, 1982; Watkins, 1987; Weick, 1982); an approach that thrives on the "management (i.e., administration) knows best mentality," hierarchical decision making, and linear flows of information to name a few. Within higher education, scientific management ideals or philosophies have a significant impact on communication. Specifically, messages sent up or down the hierarchy are subject to distortion; decisions can be implemented on the spot with little lower level input; the proliferation of written discourse supersedes face-to-face communication; and fitting in entails doing what your told rather than expressing oral dissent.

Aside from scientific management, this essay described the Collaborative School Management technique and how it fosters a more productive communication environment. CSM is a managerial technique that blends goal setting, policy making, planning, budgeting, implementing and evaluating (Caldwell & Spinks, 1988). It is used by small groups of academic members (i.e., administrators, students, teachers) who are engaged in various school-related projects. Unlike scientific management, collaborative school management facilitates communication because the exchange of information is immediate; not subject to a serial process. Also, decisions are made based on the collective input rather than by a few in the upper administration. Communication is further enhanced in that emphasis is placed on face-to-face communication and written discourse that does not exceed more than two pages on any given CSM area.

Based on our discussion of both approaches, we believe the structure of higher education should be modified to incorporate collaborative school management as a means of improving communication. Habermas (1982) has suggested that ideal communication is dependent on co-operative understanding among organizational members. CSM aspires to co-operative understanding in that members of various organizational levels can collectively participate in sharing information and making decisions. Moreover, communication is a continuous process in that issues/concerns can be orally discussed at any given time and instantaneous feedback provided. Communicating in such a manner further enhances mutual concern among CSM participants.

We further believe that scientific management negates the nexus between cooperative understanding and ideal communication. Colleges/universities utilizing scientific management ideals are typically comprised of hierarchical layers with each layer consisting of specialized units or departments. As communication goes from one hierarchical level to the next it becomes a fragmented rather than a continuous process. Due to multiple hierarchical interpretations, only bits and pieces of original information are likely to be understood. Also, physical separation among hierarchical levels fragments communication in that members of one level are usually unaware as to the issues/concerns being discussed by members at other levels. Therefore, clearly lacking with scientific management is collaborative communication involving various organizational levels and members.

In relation to scientific management and collaborative school management an empirical abyss exists. Future research needs to be directed at assessing the effects that both scientific management and collaborative school management have on communication. Perhaps structural characteristics such as the size of an academic institution makes one approach more conducive than another in terms of facilitating communicative interplay between organizational levels.

Whether institutions of higher learning will adopt CSM as a technique for improving communication remains to be seen. The dominate scientific management paradigm seems to be continually growing and more influential than ever before. According to Halford (1991), "less than one-third of those employed in higher education are directly engaged in education" (p. 17). Instead, many colleges and universities have a hierarchical structure that has grown more specialized with the proliferation of assistant deans, chairs, directors and vice-presidents.[5] Despite this trend, efforts to inculcate higher education with CSM should prove successful if perceived as more than a token incentive for facilitating communication between hierarchical levels. Moreover, it seems clear, that now and in the future, "educational administrators must respond to two forces: one, public pressure for efficiency, and accountability, and two, pressure for participation in school policy and decision-making on the part of constituencies both in and out of their institutions" (Campbell et al., 1987). In both instances, we would argue that the Collaborative School Management approach provides an optimum strategy for enhancing communication effectiveness in educational organizational decision-making.

REFERENCES AND NOTES

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[1] Data from the AAUP faculty morale survey was collected during May of 1992. The findings were unique to one academic institution and can not be generalized. Complete results can be obtained by contacting the first author.

[2] Compared to their work in 1988, Caldwell and Spinks (1992) refined the Collaborative School Management model focusing on strategic planning (3-5 year "management strategy" developed by the policy group), developing a school charter (mission or vision), and centralizing curriculum approaches. Given much more emphasis on centralizing the mission, goals, and needs of the school by "management" or those at the top, we abstained from incorporating the updated CSM model (Caldwell & Spinks, 1992) into our discussion.

[3] Due to space limitations, we did not have the opportunity to elaborate on other operational mechanics like how long a person can serve as a CSM group member or the length of time needed to complete a CSM project. Such matters can be left to the respective college/ university to resolve.

[4] We could have selected any topical area besides research such as rewarding faculty for teaching efforts. The current topic was selected for illustrating how the CSM cycle functions.

[5] Specific information pertaining to the subject of academic bloat can be found in the November/December 1991 issue of Academe. Academe is a bulletin published by the American Association of University Professors.

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