Taylor & Francis
Taylor & Francis Group

INFLUENCING THE PERCEPTION OF ORGANIZATIONAL CHANGE IN COMMUNITY COLLEGES

Randall J. Van Wagoner
Metropolitan Community College,
Omaha, Nebraska, USA

The study reported in this paper examined the influence of certain factors on the perception of organizational change in 12 community colleges within a single state community college system. The sample consisted of 510 professional staff who completed an original 71-item survey instrument. Results suggest that the primary areas where change is perceived in significantly different ways include the value of organizational change and the process by which change occurs. A conceptual model was developed based on a review of the literature. Descriptive statistics, factor analyses, and multiple regression were then conducted to explore the efficacy of the model. Overall, the model explained 29% of the variance in the dependent variables. Strategic understanding and years of service were two of the most significant factors influencing the perception of change. Implications for research and practice are discussed to explore insights on critical aspects for understanding and managing organizational change successfully.

An organization's ability to respond to change is critical to success in the current marketplace. The capacity to successfully implement change is of particular importance for community colleges due to their mission of comprehensive programs and services to multiple audiences in a local service market. Although flexibility to anticipate and respond to change is a critical part of any institution working with a local service market, staff within the institution do not necessarily accept or promote the precept of change. For many organizations, the manner in which change is perceived creates communication issues and conflict that ultimately impede change from occurring. Many factors account for this. Of critical importance, however, is the role that institutional and individual characteristics play in coloring perceptions. Institutions differ, and change may be perceived differently

Address correspondence to Randall J. Van Wagoner, Metropolitan Community College, P.O. Box 3777, Omaha, NE 68103−0777. E-mail: rvanwagoner@mccneb.edu

in larger institutions than smaller ones, or in urban rather than rural settings. In addition, individual characteristics may influence the manner in which organizational change is perceived, such as professional group and department membership, age and gender, or degree of involvement in change. In light of this, the purpose of the current study was to explore the extent to which specific institutional and individual characteristics influence the perception of organizational change in community colleges.

Because community colleges are embedded in local communities in rapidly changing environments, the necessity for change is more fundamental to this sector of higher education. The general mission of community colleges creates an intimate link to the communities they serve (Commission on the Future of Community Colleges, 1988). As a result, the program base of community colleges is more sensitive to changing conditions than most other kinds of higher education institutions. With this necessity for change, community colleges often have a number of avenues available to expand institutional capacity for change. However, all of them focus, in one way or another, on people in the organization—their feelings, beliefs, perceptions, and behavior.

The conceptual model used in this study was based on a review of organizational change theory. Institutional and individual characteristics and the perception of change represent the primary constructs of the model. For the purposes of this study, organizational change was defined as a difference in form, quality, or state of the organization as perceived by faculty and staff.

Since change is so much about the people experiencing it, the construct of perception is central to the investigation of organizational change in community colleges. Similar to the manner in which Gioia and Chittipeddi (1991) characterize large universities, community colleges have a diverse set of institutional goals and purposes, varying levels of perceived and actual power, and decision-making processes that create challenges for management as a result of staff within the organization who carry out different functions and have different perceptions of organizational behavior. As change occurs, the interpretive schemas (the manner in which meaning is ascribed to organizational events) of organizational members are destabilized, requiring new schemas to be established (Poole, Gioia, & Gray, 1989). Therefore, perceptions of change can be critically influential and create communication issues (Klein, 1994), inspire resistance to change (Huggett, 1999), and produce additional barriers that inhibit successful change from occurring.

Because community colleges are dynamic organizations, tied to their local service markets and reaching a certain point of maturation,

simply focusing on macro-level or micro-level issues related to the perception of change limits the understanding of change that a research study might yield. Instead, it is important to examine the association between institutional and individual characteristics and the perception of organizational change in community colleges.

Based on a synthesis of change models, areas of change for which perception was explored in this study included the source, extent, process, and value of change. The source of change can be viewed as external (Azzonne & Noci, 1998), and for this study, was defined as either Colorado Community College System (CCCS) initiatives or forces outside the institution. In contrast, organizational changes may be initiated by internal forces inside the organization (Langan-Fox & Tan, 1997). For the purposes of this study, the internal forces were defined as administrative, staff, or faculty initiatives. To further examine the perception of change, these items are organized around what Tushman and Romanelli (1985) refer to as organizational domains. Focusing on change in specific domains helps to identify the areas in which change will yield the greatest return for effort and affect the core elements of the organization. Therefore, the dependent variable construct analyzed the source, extent, process, and value of change in four organizational domains: decision-making, instructional programs, support services, and resources. The rationale for including these four areas versus others was that often the most visible changes in an organization relate to structure and decision-making, programs, services, and resources.

In addition to the importance of including organizational domains, Van de Ven and Poole (1988) have identified the relationship between macro-level activity and micro-level activity. Similarly, Pettigrew (1985) suggests that change research should include the dynamics related to the context of change to provide a better understanding of the content or extent of change. Therefore, institutional characteristics (location, size, and actual change) are included as independent variables. Additional individual characteristics include professional group (Peterson & White, 1992), and a set of respondent demographic variables (age, educational background, gender, and years of service).

THE MODEL

The model developed for this study accounts for the independent variable constructs of institutional characteristics, individual characteristics, professional employee group membership, and the personal basis for perception in relation to the way in which change was perceived.

The relationship between Institutional Characteristics and Personal Basis for Perception was expected to be indirect, represented by a dotted line in Figure 1. Although nothing in the literature directly speaks to this relationship, respondents' understanding of the mission and goals, the orientation toward change and involvement in change may have some indirect relationship to the size, location, and actual change of an institution. An indirect relationship also is possible between Individual Characteristics and Professional Group Membership and represents the fact that employee group membership is a particular characteristic that can be attributed to individuals in groups.

METHODOLOGY

Survey questions were developed to explore each of the four organizational domains in the study: decision-making, programs, support services, and resources. Within each domain, questions were associated with the perceived source of change, process of change, extent of
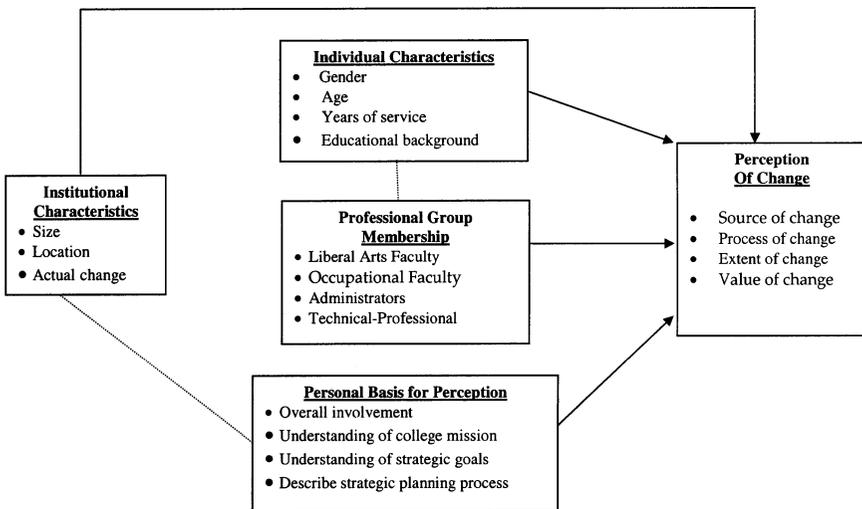
FIGURE 1 Factors that influence the perception of organizational change. The direct relationships are represented by the bold lines, with arrows to signify the potential predictive influence of institutional characteristics, individual characteristics (Fiebig & Kramer, 1998), subgroup membership (Bacharach & Bamberger 1996, Simpson & Thomas, 1993) and the personal basis for perception (Pettigrew, 1985).

change, value of change, and individual characteristics as described in the conceptual model. Because original survey questions were used, the instrument was pilot-tested prior to the actual study. The sample institutions for the pilot consisted of two local district community colleges that were not part of the state system at the time of this study.

Sample respondents from each community college in the final study consisted of liberal arts and occupational faculty, technical professionals (mid-level coordinators), and administrators (see Table 1). These are the professional employee classifications used in all CCCS colleges and represent the subgroups used for analysis in the study. The overall response rate for the study was 31% with an appropriate representation from both faculty and staff. Response rates varied among colleges, with return rates from large schools as low as 15% and as high as 44%; small schools' return rates were as low as 16% and as high as 61%.

An additional quantitative element consisted of collecting documentation of actual organizational change. The only consistent data available for all colleges were total budget, total enrollment, the addition and deletion of instructional programs, and total personnel over the three-year period of the study.

Institutions generally sharing the same mission and function and operating in similar environments tend to adopt similar structures and systems as they experience comparable cycles. This concept, called institutional isomorphism (Dimaggio & Powell, 1983), is evidenced to varying degrees among all the community colleges in Colorado. At the time of this study, the Colorado Community College System had 13 colleges, each with its own campus president reporting to the System president. All system community colleges in Colorado operate under the same state board policies, share common student and financial information systems, and receive funds through the same revenue formula. These common elements create an environment of consistent comparison among the sample colleges. In addition, the central system office and various reporting mechanisms provided an accessible range of data that facilitate comparisons.

With such a large set of survey items and variables, a factor analysis was needed to identify potential composite variables. Since no similar research has been conducted in community colleges, this was considered to be an exploratory study employing a principal components analysis with an orthogonal rotation. All survey items were included except for the individual demographic items and those related to the personal basis for perception construct. The following criteria were used for placing items on particular factors: (1) Items were included in the factor upon which they loaded highest; (2) Items had an eigenvalue greater than one; and (3) Items were conceptually appropriate to the factor.

The initial results yielded 14 total factors that met the stated criteria for item inclusion. However, the strongest factors remained unchanged throughout all analyses, while the weakest factors fell apart with the 11-factor solution. Therefore, a 12-factor solution set was used for the final analysis. Moreover, the scaled variables aligned more closely with the conceptual model.

Only one correlation between variables was beyond the threshold of .80 (Cooper & Schindler, 1998). The variables Urban and Size had a correlation of .90. The Size variable was omitted and the Urban variable was retained, since the larger colleges are in the metropolitan areas.

The following blocks of independent variables were used in the ENTER regression method for all of the multiple regression procedures:

- Block 1—Institutional characteristics: Urban and Actual Change
- Block 2—Individual characteristics: Years of Service, Gender (Male), Age, Educational Background
- Block 3—Professional group (Faculty)
- Block 4—Strategic Understanding

Based on factor analysis of the survey items, 16 dependent variables were identified to most accurately represent the various dimensions of how organizational change is perceived.

RESULTS

The results of this study demonstrate four major findings: (1) The longer individuals stay at one institution, the more likely that their experience and duration tends to negatively influence their perceptions of organizational change; (2) The more individuals understand the mission and strategic goals of an institution, and the more they are involved in change, the better equipped they are to put change into context and view change in a positive manner; (3) Perception of change is not necessarily influenced to any great extent by professional group membership—It is not particularly a group phenomenon, but rather an individual one; and (4) Perception often does equal reality when it comes to organizational change in that the more actual change that occurs in an institution, the more likely people are to perceive change occurring to a greater extent and the more likely they are to perceive value in the changes.

Table 2 provides an overview of the Beta and significance levels of all eight independent variables as they relate to each of the 16 dependent variables by construct.

TABLE 1 Sample Colleges' Population

Community college	*Total population surveyed			Total Sample Returned		
	Faculty	Admin. & tech pro	Total	Faculty	Admin. & tech pro	Total return
Arapahoe CC	88	69	157	10	14	24
CC of Aurora	23	24	47	6	13	19
CC of Denver	115	80	195	16	20	36
Front Range CC	140	104	244	26	31	57
Lamar CC	24	31	55	11	1	12
Morgan CC	39	26	65	14	26	40
Northeastern CC	56	48	104	19	22	41
Otero JC	29	98	127	13	8	21
Pikes Peak CC	121	134	255	73	40	113
Pueblo CC	72	90	162	29	19	48
Red Rocks CC	68	77	145	19	30	49
Trinidad State JC	65	67	132	24	26	50
Total	840	848	1,688	260	250	510

* The figures for the total population surveyed were obtained from the Colorado Commission on Higher Education Data Digest, 1997–1998.

TABLE 2 Summary Table: Beta and Significance Levels of Predictor Variables

Dependent variable by domain	R-squared	Actual change	Urban	Years of service	Male	Age	Educational background	Faculty	Strategic understanding
Source of Change From									
CCCOES initiatives	.134	.254***		.132**		− .116*			.260***
Outside sources	.087				− .099*				.199***
Faculty initiatives	.133				− .133**		− .093*		.318***
Process of Change for									
Decision-making	.170			.242***					− .347***
Program changes	.164	.107*		.209***					− .322***
Support services changes	.120			.210***					− .288***
Resource changes	.122			.232***					− .254***
Extent of Change in									
Enrollment	.072			.171**		− .108*	− .101*		.164**
Decision-making	.132	.177***		.164**				− .106*	.256***
Programs	.269	.121*			− .150**		− .126**		.466***
Personnel systems	.172	.221***		.125**	− .093*			.123**	.269***
Facilities	.261	.249***	.109**		− .086*				.426***
Value of Change in									
Support services changes	.187	.106*					− .121**		.414***
Resource changes	.288	.156***						− .096*	.511***
Decision-making changes	.254	.128**		− .155**			− .090*		.477***
Program changes	.197	− .159**							.413***

*p < .05, **p < .01, ***p < .001; n = 482

The first research question examined the association between institutional characteristics and the perception of organizational change. Institutional location was not as significant (1 of 16 equations) as the extent of actual change (10 of 16 equations) in influencing the perception of change.

Four individual characteristics were considered as independent variables and used as predictors in all 16-regression equations. Dependent variables included, Years of Service, Educational Background, Gender, and Age. All of these items were self-reported by respondents. Years of Service was the most influential individual characteristic (significant in 9 of 16 equations), followed by Gender (Male) (5 of 16 equations), Educational Background (5 of 16 equations), and Age (2 of 16 equations).

Based on a review of the literature, it was anticipated that the demonstrated differences in the work life of faculty and administrators would carry over into their perceptions of organizational change. However, Professional Group was a significant predictor in only 3 of the 16 models. Results indicate a positive relationship with Employee Systems such that faculty were more likely than administrative staff to perceive changes occurring to a greater extent.

Strategic Understanding was the most powerful predictor variable in this study with the highest Beta value in 15 of the 16 regression equations. The significant influence of this variable in every aspect of change included in this study confirms the hopes of many administrators that an understanding of mission and strategic goals is important to guiding organizational change. In addition, the assumption that the more people are involved in change, the more they will participate and embrace change is confirmed by these findings.

Actual Change was the second most powerful predictor with significant relationships among the dependent variable in 10 of the 16 equations. Actual Change was significant in all four of the equations related to the Value of Change construct. This result has a general implication that the more actual change that occurs, the more likely people are to find value in the changes. A note of caution is appropriate regarding this finding: change efforts should not be expanded simply toward the end of hoping that more value will result. Rather, there is simply a significant relationship here that more accurately implies higher levels of actual change are probably more visible, and therefore, easier for people to understand and find value. Actual Change was a significant predictor variable in four of the five Extent of Change equations. This implicitly supports the long-held notion that perception equals reality. The more actual change that occurred, the more likely people are to perceive a greater extent of change.

Another powerful predictor in this study was Years of Service, which was significant in 9 of the 16 models. Significant relationships were obtained between Years of Service and all four change process equations and three of the five extent of change equations. The assumption put forth earlier was confirmed—that the more years of service a respondent has, the more likely the longer-term employee will view change as having occurred to a lesser extent, by means of less collaborative process and having less value than his or her more junior colleagues.

DISCUSSION

The most significant finding of this study is that when individuals are able to put organizational changes into a larger context, via a stronger strategic understanding, they are more accepting of change efforts. Being able to connect changes to the organizational mission and seeing changes linked to the strategic goals of the college provide that larger frame of reference. A serious consideration for further study would be to deconstruct the strategic understanding variable and seek to have a more refined definition for this construct in the future. In addition, the importance of inclusion in change processes is significant. This issue goes beyond the nuances of governance in higher education to basic human nature; the more involved in change we are, the more likely we are to understand and embrace change. These findings have implications directly related to designing organizational change processes. When processes are established to provide for employee input, particularly related to organizational change, it should be made clear as to when others are being included, why they are being included, how they are being included, and under what terms their input will be considered in the change process.

An important finding of this study was the lack of influence that professional employee group membership has on the perception of organizational change. The fact that Professional Subgroup was significant in only 3 of the 16 equations indicates that this factor does not play as large a role in how change is perceived as originally assumed.

The findings related to the perceived value of change have implications for practice as well. Successful change will be more likely to occur when practitioners tend to and account for those items in change processes. For example, people will often value their co-workers because of the personal relationships that have been developed over time and the sense of stability those relationships provide. If their institution undergoes a restructuring, resulting in a number of people losing their jobs, management will be less likely to find internal

support and engagement than a situation in which roles and responsibilities change, but the impact on personal relationships is minimized.

The perception of the value of change is not only a practical matter at the individual level, but also has implications at the institutional level. Since strategic understanding is a significant predictor of how change is perceived, it is important to articulate the value that changes will have toward accomplishing the strategic goals and advancing the mission of a college. The more people can connect change to important elements of the institution as a whole and to their personal experience within the organization, the more value they will perceive in the changes that occur.

Although it was not included within the scope of this study, the relationship between communication and change remains a major gap in the change literature. Particularly based on the significant influence of respondents' strategic understanding, the way in which change is communicated could have a significant effect on the way change is perceived. Although strategic understanding was a significant predictor in every instance, the set of independent variables used in this study failed to explain more than 29% of the variance in any dependent variable. It is reasonable to project that the manner in which change is communicated could account for a substantial portion of this unexplained variance in the dependent variables.

LIMITATIONS OF THE STUDY

The primary limitation to this study resulted from the use of one state community college system as the sample. Given the range of state configurations for community colleges in the United States, additional empirical studies of institutions outside of Colorado are needed.

A second limitation was the absence of any exploration of the relationship between organizational change and the enhancement of student learning. The value of change was investigated with regard to benefiting individuals, programs, and the college. However, future research examining the value of change toward the benefit of student learning might prove timely and beneficial.

Given the importance placed on the concept and influence of time in studying organizational change (Goodman & Dean, 1982; Kahn, 1982; Mintzberg & Westley, 1992; Tichy, 1983), a fundamental limitation to this study is the fact that it was primarily a cross-sectional study of change limited to a small three-year period across 12 institutions. A more longitudinal study would have allowed for more depth, understanding, and interpretation of the primary research questions.

Another limitation of the sample is the variation of response rates by institution. Response rates were typically higher for some of the larger institutions and generally lower in smaller colleges. A few exceptions existed with small colleges such as Morgan Community College with a high response rate, and large institutions such as Front Range with a comparatively lower return.

Finally, results of the study are limited to Colorado community colleges. Although this study included 12 colleges from both rural and urban areas ranging in enrollment from 1,000 to 11,000, it was conducted in a single state system of community colleges and any generalizations beyond the state of Colorado should be done with caution. Nevertheless, the results of this study can be used to gain additional insight into the general nature of organizational change in community colleges and to develop additional hypotheses for subsequent larger studies.

REFERENCES

Azzone, G. & Noci, G. (1998). Seeing ecology and "green" innovations as a source of change. *Journal of Organizational Change Management, 11*(2), 94−111.

Bacharach, S. B. & Bamberger, P. (1996). The organizational transformation process: The micropolitics of dissonance reduction and the alignment of logics of action. *Administrative Science Quarterly, 41*(3), 477−507.

Commission on the Future of Community Colleges. (1988). *Building communities: A vision for a new century*. Washington DC: American Association of Community and Junior Colleges.

Cooper, D. R. & Schindler, P. S. (1998). *Business research methods* (6th ed.). Boston, MA: Irwin McGraw-Hill.

Dimaggio, P. J. & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*, 147−160.

Fiebig, G. V. & Kramer, M. W. (1998, May). A framework for the study of emotions in organizational contexts. *Management Communication Quarterly, 11*(4), 536−572.

Gioia, D. A. & Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal, 12*, 443−448.

Goodman, P. S. & Dean, J. W., Jr. (1982). Creating long-term organizational change. In P. S. Goodman & Assoc. (Eds.), *Change in organizations* (pp. 226−279). San Francisco:Jossey-Bass.

Huggett, J. (1999). When culture resists change. *Quality Progress, 32*(3), 35−39.

Kahn, R. L. (1982). Conclusion: Critical themes in the study of change. In P. S. Goodman & Assoc. (Eds.), *Change in organizations* (pp. 409−429). San Francisco: Jossey-Bass.

Klein, S. M. (1994). Communication strategies for successful organizational change. *Industrial Management, 36*(1), 26−30.

Langan-Fox, J. & Tan, P. (1997). Images of a culture in transition: Personal constructs of organizational stability and change. *Journal of Occupational and Organizational Psychology, 70*, 273−293.

Mintzberg, H. & Westley, F. (1992). Cycles of organizational change. *Strategic ManagementJournal, 13*, 39−59.

Peterson, M. W. & White, T. H. (1992). Faculty and administrator perceptions of their environments: Different views or different models? *Research in Higher Education, 33*(2), 177−204.

Pettigrew, A. M. (1985). Examining change in the long-term context of culture and politics. In J. M. Pennings & Assocs. (Eds.), *Organizational strategy and change* (pp. 269−318). San Francisco: Jossey-Bass.

Poole, P. P., Gioia, D. A., & Gray, B. (1989). Influence modes, schema change, and organizational transformation. *Journal of Applied Behavioral Science, 25*(3), 271−289.

Simpson, D. J., Thomas, C. (1993). Community, collegiality, and diversity. In J. J. Van Patten (Ed.), *Understanding the many faces of higher education* (17−32). Lewiston, NY: The Edwin Mellen Press.

Tichy, N. M. (1983). *Managing strategic change: Technical, political, and cultural dynamics*. New York: John Wiley & Sons.

Tushman, M. L., & Romanelli, E. (1985). Organizational evolution: A metamorphosis model of convergence and reorientation. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (pp. 171−222) Greenwich, CT: JAI Press.

Van de Ven, A. H. & Poole, M. S. (1988). Paradoxical requirements for a theory of change. In K. S. Cameron & R. E. Quinn (Eds.), *Paradox and transformation* (pp. 19−64). Cambridge: Ballinger Publishing Company.