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Looking at Extension as a Learning Organization

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Abstract: This article shares an understanding of how Extension at a major university serves as a Learning Organization and its capacity to address change. The study examined how to assess the capacity of staff members to promote organizational learning. The researcher administered a 43-item survey instrument, the *Dimension of the Learning Organization Questionnaire (DLOQ)*, designed by Watkins and Marsick (1997) to Extension employees. As a strategic planning tool, the survey identifies organizational learning strengths and challenges at the individual, team, and organizational levels.

Introduction

Environmental influences often stimulate organizational change. In order to maintain a competitive edge, Extension as an organization must realize and respond to sudden shifts in services for our customers. Change is a constant that must be considered for survival in this rapidly changing environment. Extension must become a learning organization and be flexible.

Organizational learning, as defined by Bennis and Nanus (1985), is the process by which an organization obtains and uses new knowledge, tools, behaviors, and values. It happens at all levels of the organization. Individuals learn as part of their daily activities, particularly as they interact with each other and the outside world. Groups learn as their members cooperate to accomplish common goals. The entire system learns as it obtains feedback from the environment and anticipates further changes. At all levels, newly learned knowledge is translated into new goals, procedures, expectations, role structures, and measures of success.

Conceptual Framework

Early interest in the normative processes of organizational change and development has more recently given rise to studies of "organizational learning" (Kofman & Senge, 1993; Popper & Lipshitz, 1998; Watkins & Marsick, 1993). The extent to which an organization "learns" is thought to be related to both structural factors (mechanisms and procedures that allow organizations to systematically collect, disseminate, and use information) and cultural factors (including shared professional values, leadership, and vision.) Organizations are able to gain knowledge/learn by synthesizing the knowledge of individual members (Forss, Cracknell, & Samset, 1994; Watkins & Marsick, 1993).

The conceptual framework for the study reported here is a model of organizational learning developed by Watkins and Marsick (1993, 1996) identifying learning that takes place at the individual, team or group, and

organizational level. The *dimensions of the learning organization* are action imperatives that facilitate the formation of learning organizations. These activities take place at the individual, team, organizational, and societal learning levels. The action imperatives (Marsick & Watkins, 1999, p. 11) are as follows:

- Create continuous learning opportunities.
- Promote inquiry and dialogue.
- Encourage collaboration and team learning.
- Establish systems to share and capture learning.
- Empower people toward a collective vision.
- Connect the organization to its environment.
- Provide strategic leadership for learning.

Organizational learning is transformational learning and helps organizations understand and overcome the changes affecting them. If an organization is to become a learning organization, these seven dimensions should be well represented in the culture of the organization.

Initial interest in organizational learning came from the researcher's experience while providing leadership for UVM Extension's Children, Youth and Families at Risk (CYFAR) programming. Three waves of evaluation (1998, 2000, and 2004) were conducted with UVM Extension professionals using an organizational change survey document provided by CYFAR national leadership, yet the results from the investigation were not terribly conclusive. Findings indicated that over time UVM Extension professionals working with CYFAR programming had not increased their capacity to work with the targeted at-risk populations, nor to act as collaborators to affect the broader societal issues.

Two research questions guided the study. First, to what extent does select organization information, such as office location, number of years employed in organization, employee title, and level of participation in CYFAR efforts, independently explain observed variance in Watkins and Marsick's seven dimensions of the learning organization? Second, to what degree do UVM Extension professionals perceive to demonstrate the principles or components of what we now call a learning organization?

Methods

Participants

The survey population was identified using contact lists provided by the state Extension office based on payroll records. The UVM Extension contact list identified 93 individuals. Following the Dillman method (2000), the survey was launched in mid September 2006. Upon closing the survey in early December 2006, the response rate reached 68% (n=63), exceeding the anticipated response rate of 47% identified in the

literature (Dillman, 2000).

Research Design

The study utilized data gathered from the UVM Extension organization. Perceptions of Extension personnel are measured using the *Dimension of Learning Organization Questionnaire* (DLOQ), a 43-item Likert scaled survey designed by Watkins and Marsick (1997) addressing each of the seven action imperatives conducted in an on-line format. Six additional questions were included to gain demographic information of the participants including:

- (a) Those who work for UVM Extension in base funded positions and those who do not; (b) Extension region in which respondent works;
- (c) Number of years employed by the organization;
- (d) Extension professionals programming in the area of Children, Youth and Families as well as those professionals supporting (i.e. program leader, communication specialists) and supervising the program group;
- (e) Professional title of respondent; and
- (f) Level of participation in CYFAR programming.

Statistical Methods

The Cronbach Alpha coefficients were calculated using SPSS for each of the action imperatives in the survey and ranged from .83 to .93. The standard acceptance of reliability found in the literature is .70 (Nunnally, 1978), therefore reaffirming the reliability of the DLOQ instrument.

Initial analysis included the total number of respondents, the range of response scores, and respondent maximum and minimum scores, as well as mean, median, mode, and standard deviation of all the respondents for each dimension imperative. Where a respondent did not answer one or more of the questions within a dimension construct, their data was removed from analysis for that dimension. Response frequency analysis was used to identify areas of weakness for each question within each dimension.

The Mann-Whitney *U* test was used to evaluate whether the medians on a test variable differ significantly between groups within the independent variables. It was applied to determine which of the dimension scores are significantly different by the respondents' years in the organization or by the level of participation. Several tests were run to thoroughly investigate each categorical variable.

Findings

When considering the demographic of office location, the researcher was very interested in comparison between respondents from the Central/Northeast Region of Vermont, where she provided leadership as Regional Director, compared to respondents in other locations. A Mann-Whitney *U* test was conducted to evaluate the hypothesis that UVM Extension professionals responding from the Central/Northeast region would score higher, on the average, than respondents in the other three locations. The results of the test were as expected and significant, $z \geq -2.03$, $p < .05$ for three of the seven dimensions. Table 1 shows the test results on the seven dimensions for the two groups.

Table 1.
Analysis of Central/Northeast Region vs. Other Office Locations

Test Statistics(a)	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Continuous Learning	246	912	-2.816	0.005
Inquiry and Dialog	307	973	-1.892	0.059
Team Learning	283.5	949.5	-2.033	0.042
Systems to Capture Learning	212.5	842.5	-3.027	0.002
Empowerment	309	939	-1.49	0.136
Connect to Environment	338	968	-1.269	0.205
Provide Leadership	333.5	1036.5	-1.635	0.102
a Grouping Variable: Central/Northeast Region is 1				

Analysis of the responses compared to the years of service or tenure variable showed that the newest members of the UVM Extension professional community (less than 5 years) provided responses that were statistically significant for four of the seven dimensions of a learning organization. A Mann-Whitney *U* test was conducted to evaluate the idea that those new to the UVM Extension professionals community and therefore less affected by the culture created around organizational learning would score higher, on the average, than those with longer tenure on the dimensions of a learning organization. The results of the test were to some extent in the expected direction and significant, $z \geq -2.87$, $p < .05$. Table 2 shows analysis conducted.

Table 2.
Analysis of 5 Years or Less of Service vs. Other Service Tenures

Test Statistics(a)	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Continuous Learning	190.5	1225.5	-2.518	0.012
Inquiry and Dialog	178.5	1259.5	-2.795	0.005
Team Learning	189	122.4	-1.934	0.053
Systems to Capture Learning	264.5	1254.5	-1.143	0.253
Empowerment	158	1239	-2.874	0.004
Connect to Environment	231.5	1312.5	-1.586	0.113

Provide Leadership	219.5	1300.5	-2.106	0.035
a Grouping Variable: under 5 years and other				

The researcher was interested in seeing if there was an effect on mean score based on position title. The Mann-Whitney *U* test was replicated for each of the three position titles (Administrative Staff, Faculty, and Program Staff) to evaluate if one segment of the respondents based on position title would score higher, on the average, than the respondents of the other two titles combined. The results of the tests showed no statistically significant difference in mean scores between or among the three position title groups. Similarly, when applying the Mann-Whitney *U* test to independent variables related to level of participation in CYFAR or source of salary/wage funding, no statistically significant difference in mean scores was indicated.

The researcher took a closer look at the frequency scores for individual questions within each of the six action imperative where response frequency was 25% or more for scores of 2 or lower (1 being almost never and 6 being almost always). Table 3 shows specific questions for six of the seven action imperatives where the respondents scored poorly, frequency rates at 25% or higher for scores of 2 or lower (1 being almost never and 6 being almost always). As a strategic plan is designed, these identified questions provide the challenge for action in building a *learning organization*.

Table 3.
Questions where 25% Scored 2 or Lower

Dimension	Question and Frequency
Continuous Learning	1. In my organization, people openly discuss mistakes in order to learn from them. (33.3%)
Inquiry & Dialogue	
Team Learning	19. In my organization, teams/groups are confident that the organization will act on their recommendations. (38.1%)
Systems to Capture Learning	22. My organization maintains an up-to-date data base of employee skills. (59.0%) 23. My organization creates systems to measure gaps between current and expected performance. (35.0%) 24. My organization makes its lessons learned available to all employees. (42.9%) 25. My organization measures the results of the time and resources spent on training. (41.9%)
Empowerment	26. My organization recognizes people for taking initiative. (25.4%) 31. My organization builds alignment of visions across different levels and work groups. (32.3%)

Connect to Environment	33. My organization encourages people to think from a global perspective. (30.6%) 35. My organization considers the impact of decisions on employee morale. (38.1%)
Provide Leadership	41. In my organization, leaders mentor and coach those they lead. (28.6%)

Conclusion

The survey results provide a baseline to identify strengths as well as areas of concern for UVM Extension professionals as a learning organization. We will celebrate the success related to strengths within the Inquiry & Dialogue dimension where 76% or more of the respondents scored questions 8-13 at 3 or above (1 being almost never and 6 being almost always). Some particular statements to note include; "In my organization, people treat each other with respect" (average score of 4.14). To a lesser extent but still within the average range of 3.10 to 3.65 are statements related to people spending time building trust with each other, being encouraged to ask "why" regardless of rank, listening to others' views before speaking, asking what others think, and giving open and honest feedback to each other.

Building and sculpting a learning organization will take deliberate action and monitoring of results. Where to start? The dimension most clearly identified for strengthening is *Systems to Capture Learning*. Within the six questions designed to measure the dimension, frequency data shows that four of these questions had a frequency response rate of 25% or higher for a score of 2 or lower (1 being almost never and 6 being almost always). Stages of learning are defined by Gavin (2000) and include acquiring information (quality data collection); interpreting information (identifying the meaningful generalizations from the acquired information); and applying information (put the learning into action, practice new behaviors).

UVM Extension professionals' learning is diminished with failure to fully achieve at each stage. When asked to assess the statement, "My organization maintains an up-to-date data base of employee skills," 59% responded with a score of 2 or lower. This statement represents an example of a missed opportunity for *acquiring information* that would be very valuable to the organization.

Interpreting information and applying information, the second and third stages, are represented with the statement, "my organization creates systems to measure gaps between current and expected performance" where 35% of respondents scored the statement as a 2 or lower (1 being almost never and 6 being almost always). The statement, "My organization measures the results of the time and resources spent on training" is also a reflection of these stages. For this later statement, 41.9% scored it as a 2 or lower. The final stage of applying information is somewhat represented by the statement "My organization makes its lessons learned available to all employees," when 42.9% scored the statement at a 2 or lower. Part of applying information is sharing the results for others to learn or use as data for continued learning.

UVM Extension professionals perceive themselves to demonstrate some of the dimensions that Marsick and Watkins outline in their model of a Learning Organization. Leadership of the organization must enhance efforts to expand the dimensions where strength is needed and to foster an environment where barriers are minimized.

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