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IMPACT OF SELF-REPORTED LISTENING PREFERENCES OF BUSINESS COMMUNICATION STUDENTS ON CHOICE OF COLLEGE MAJOR

Virginia Hemby, Middle Tennessee State University

ABSTRACT

The purpose of this study was to determine the potential relationship between listening preferences and choice of college major of Business Communication students from two regions of the United States. Listening preference was defined by the Listening Styles Profile as being one (or more) of four orientations: People, Content, Action, and Time (Watson & Barker, 1995). The examination of listening preference(s) was important to this study because the researcher hoped to identify characteristics and factors contributing to significant differences in individual participants' choice of college major. An examination of 484 business communication students' self-reported preferred listening styles and their selection of college major revealed the dominant listening preference of students—regardless of major—to be people-oriented listening.

INTRODUCTION

What makes one student select accounting as a career path while another selects marketing? Does each student possess certain skills that best suit his/her choice of career? Do listening preferences play any role in the choice of career for college students? A plethora of information is readily available concerning the effects of listening on learning, employability, and promotability. However, no answer can be found concerning the connection, if any exists, between an individual's listening preference(s) and his/her career choice.

Research has shown that the average person spends about 80% of his/her waking hours communicating—reading, writing, speaking, and listening. Approximately 45% to 50% of that time is spent listening to people, music, radio, television, etc. Yet, less than 5% of people have ever concentrated on developing their skills in listening (The Sacred Art, 2009).

Listening skills are vital to success in any work environment. Ask any employer what skills are most desired in prospective employees, and the answer will be communication skills (writing, speaking, and listening) (Job Outlook, 2010). However, listening is not a subject that is addressed in the classroom environment with any specific skills training intended (Johnson, 2010). Most business communication textbooks dedicate segments of chapters to the topic of listening; some offer tips for overcoming barriers to listening and/or identify the types of listeners most noted in the population at large (Guffey, 2011; Lehman and Dufrene, 2008; Shwom and Snyder, 2012). However, skills development activities are few in number, and students often do not consider listening to be a topic of serious importance to their future success in the work place.

Through reinforcement in early classroom settings, children grow to rely on teachers repeating assignments and instructions or posting these assignments or instructions on the board or on a course web site. As they progress through the educational process, students find course calendars with assignments, email reminders of assignment due dates, and various other mechanisms for the distribution of assignments, instructions, and/or reminders of assignments, projects, etc. , none of which require listening as the primary method for acquiring the information.

When faced with situations that include listening as a requirement, people rely on their listener preferences—"the habitual responses that have been cognitively structured, practiced, and reinforced over time" (Watson & Barker, 1995, p. 1)—behaviors that are automatic. With the advent of technologies that require listening as the primary communication method, individuals have simply learned to be selective in their listening preferences. Podcasts, YouTube videos, iTunes—these tools are just a sampling of the myriad technologies available to people to receive information on an as-needed basis, with the commonality being that listening is required. However, individuals have developed habitual and comfortable patterns of listening behavior and are not willing to adapt their listening styles to accommodate different environments, events, or people. As such, "unknowingly, people make judgments and decisions based on their habits that may affect their communication effectiveness" (Watson & Barker, 1995, p. 1).

Just as research has suggested that every individual has a preferred learning style, so too have studies led to the supposition that each person has an individual preference for listening—a preferred listening style (Weaver, Watson, and Barker, 1996). While one person's preference may be people oriented, another individual may be time oriented. Also, many individuals have multiple listening preferences and may switch among them according to the situations and/or the people involved. The latter process would be the one preferred because individuals who understand their preferences for listening will also be able to adapt their listening to specific environments, individuals, time situations, and the needs of others. People can be trained to adapt their listening styles but most are unaware that changing the way they listen could make the act of listening more enjoyable or more efficient (Watson & Barker, 1995).

The goals for this study were (1) to determine business communication students' self-reported listening styles preferences; (2) to discern whether any one listening style preference was dominant among business communication students as a group; (3) to examine students' listening preferences by identified major to determine whether a correlation existed between listening preference(s) and choice of major; (4) to determine whether students' listening preferences vary significantly between two regions of the country; and (5) to ascertain whether students' listening preferences have shown a change over time.

PURPOSE OF STUDY

The purpose of this study was to examine the relationship between personal characteristics and choice of college major of Business Communication students from two regions of the United States. Personal characteristics were divided into gender and listening preference(s). Listening preference was defined by the Listening Styles Profile as being one (or more) of four orientations: People, Content, Action, and Time (Watson & Barker, 1995). The examination of listening preference(s) was important to this study because the researcher hoped to identify characteristics and factors contributing to significant differences in individual participants' choice of college major. The second part of the study asked participants to identify their choice of college major and reasons for their selection.

RESEARCH QUESTIONS

The following questions guided the research:

1. What are Business Communication students' self-reported listening styles preferences as measured by the Listening Styles Profile (Watson & Barker, 1995)?
2. What are Business Communication students' majors?
3. Do Business Communication students' listening preferences vary by region of the country?
4. Have Business Communication students' listening preferences changed over the course of time encapsulated in this research project?
5. Does choice of student major relate to student listening preference(s)?
6. Does gender of Business Communication student relate to student listening preference(s)?
7. Does choice of Business Communication student major relate to student listening preference(s), controlling for the effects of gender?

REVIEW OF LITERATURE

Research into the art and science of listening is not new. One need only conduct a search for published articles on the topic to find numerous ones spanning decades of work. Researchers have argued that Plato had a philosophy of listening (Haroutunian-Gordon, 2011). Rousseau, research has noted, "stressed that listening is involuntary: we cannot choose whether or not to listen, nor can we decide when we do so" (Laverty, 2011, p. 157). Even Dewey distinguished between listening as a one-way process and listening as "positive transactional listening-in-conversation" (Waks, 2011, p. 194). Dewey viewed one-way communications as a process for rote memory. In transactional listening, as he viewed it, "the listening is constructive in that the participants, the contents of their communications, and even the very vocabularies they adopt are all constructed or reconstructed through the conversational give-and-take" (Waks, 2011, p. 195).

Journals devoted to listening research (i.e., *International Journal of Listening*) and a literature search revealed that the plethora of current research regarding listening as a communication process primarily focuses on the skill as it relates to second language learners. The second most recognizable area of research on the topic of listening involved medical and counseling segments of the population (i.e., doctors/nurses interacting with patients, social workers counseling clients and families, etc.). However, a paucity of research exists regarding the relationship between listening skills and success in the business environment.

In 1975, Weinrauch and Swanda examined the role of listening in business, using a sample of practitioners from South Bend, Indiana. The researchers contended that more attention needed to be directed toward listening. Therefore, they sought to ascertain the amount of time businesspeople reported spending on listening activities and other communication tasks. From an examination of their data, Weinrauch et al., discovered that listening was, in fact, the primary communication activity. From these results, the researchers believed that recognizing the importance of listening and developing an interface between theory and practice was an imperative for instructors (1975).

Moving forward three decades from the Weinrauch et al., research, Brunner (2008) reported that listening was still being overlooked in the academic venue; and that because of the lack of emphasis on listening training, few people actually possessed this important business skill. Brunner's research findings reiterated the belief that students would benefit from "learning how to become effective listeners. With this knowledge, they could be better equipped to build successful personal and business/organizational relationships, which could lead to better workplace environments, better customer relations, and better community relationships" (2008, p. 81).

In 2008, Flynn, Valikoski, and Grau concluded from a review of research regarding listening in the business context that a lack of empirical research existed in the area. As Flynn et al., concluded "Despite listening being considered so vital a skill for leaders and managers to master, little empirical research has been conducted into the mechanics of effective listening in the workplace or into the nature of listening as a factor contributing to the success of a business" (p. 148).

Adams and Cox (2010) sought to examine how (and if) listening was being covered in public speaking texts. According to the researchers, listening instruction was still not occurring as had been previously predicted, particularly in regard to the integrated approach with speaking espoused by Lewis and Nichols (as cited in Adams and Cox, 2010).

In 2011, Johnston, Reed, and Lawrence reported that previous research targeted individual listening and neglected the team environment, despite the increasing use of teams in the workplace. Because of the perception that the listening scales in existence did little, if anything, to address listening in a team setting, the researchers created and validated an instrument designed for such purpose, Team Listening Environment (TLE) Scale. Johnson et al., discussed the importance of listening in the business environment, describing previous research findings that support the contention that effective listening skills are paramount to success in the work place.

Again, the research supports the concept of listening as being a critical communication skill. However, a disconnect is still apparent between what the research espouses and what instructors do in their classrooms and what textbooks cover in their pages. If students do not understand what listening means, what the construct itself covers, if they cannot identify their own particular preferences for listening (or not listening) and learn mechanisms for improving their listening skill, then listening (or the absence thereof) will continue to be an issue.

LISTENER PROFILE INTERPRETATION

The Listening Styles Profile assists individuals in assessing their listening preference(s). Each listening preference has both positive and negative characteristics.

People-oriented listeners are concerned about others and care for them; they are nonjudgmental and always provide clear verbal and nonverbal feedback. These listeners are interested in building relationships with people. The negative aspects of the people-oriented-listener, however, can create problems in the workplace. People-oriented listeners are intrusive with others; they will avoid seeing fault in other people and will internalize or adopt the emotional state of another person. Most often, these listeners are overly involved with the feelings of other people (Watson et al., 1995).

Action-oriented listeners, on the other hand, are very focused; they want people to get to the point quickly. These listeners will help others by providing clear feedback and encourage people to be organized and concise. The negative side of the action-oriented listener is impatience. Action-oriented listeners are very impatient, particularly with rambling speakers; they will jump ahead and finish speakers' thoughts or reach conclusions quickly. These listeners are overly critical and tend to minimize any relational issues or concerns (Watson et al., 1995).

Content-oriented listeners are interested in challenging, technical information. These listeners like to examine all sides of an issue. The negative aspects of content-oriented listeners lie in their inability to make swift decisions and in their ability to intimidate others through the use of pointed questions. These listeners also tend to devalue non-technical information and discount information that originates with non-experts (Watson et al., 1995).

For time-oriented listeners, time is of the essence. These listeners will set time guidelines for meetings, tell people how much time is available for conversations, and give cues to speakers when they believe time is being wasted. As evident from the positive attributes of the time-oriented listener, the negative aspects also involve time and time wasters. Time-oriented listeners tend to rush speakers because they look at their watches or clocks; they will interrupt speakers as well. These listeners limit creativity in others because of their time constraints, and they also create problems for themselves because they allow time to affect their own concentration (Watson et al., 1995).

From these descriptions, one can easily surmise that each of these listening preferences has value based on the environment, the context, etc., of the listening situation. However, one can also see where relying on one particular listening preference could be detrimental to success in any situation, especially the work place. But if individuals are unaware of their own particular listening preference(s), they cannot take steps to rectify their over-reliance on a subconscious choice they have been honing since childhood.

METHODOLOGY

The following section describes the research participants and the data collection procedures.

Subjects

The population for this study was comprised of Business Communication students enrolled at a mid-Atlantic state-supported university and a southern state-supported university. The researcher chose to use a convenience sample because both institutions had a Business Communication course with numerous sections, thus providing the researcher with a population for the study. The use of the convenience sample decreases the generalizability of findings, however. This study was conducted over a period of five (5) years (2002-2004; 2007-2010) and involved 532 subjects (18 sections of the business communication course with 28 students per section). All standard protocols were completed for study.

The total number of usable responses for this study was 486. However, two of the subjects failed to include demographic information as to subjects' majors; thus, 484 usable surveys were obtained (a participation rate of 91 percent). The final sample consisted of 296 males (164 males from mid-Atlantic state-supported university; 132 males from southern state-supported university) and 188 females (118 from southern state-supported university; 70 from mid-Atlantic state-supported university).

Data Collection Procedures

Initially, the researcher canvassed existing literature for specific instruments designed to identify an individual's listening preferences to select one for use in the business communication classroom. Business communication students did not grasp the importance of listening, and many of them exhibited poor listening behaviors during class. Therefore, the researcher thought the use of an instrument of this type would be beneficial in helping students identify their listening preferences and in teaching them that listening styles are adaptable to specific situations and content.

So, the goal behind the inclusion of a method for identifying listening preferences was to help business communication students recognize that their listening preferences are habitual (unconscious responses) and that they could develop strategies for adjusting those preferences to meet situational and environmental needs.

The researcher initially selected the *Listening Styles Profile* (Watson & Barker, 1995) for use in business communication classes because of its length and ease of use. In addition, the facilitator's guide that accompanied the *Listening Styles Profile* was very detailed and included information on understanding listener preferences, instrument development and validation, explanations of the four listener preferences, and administration guidelines for the instrument.

Listening Styles Profile. Watson and Barker created the *Listening Styles Profile* in response to theoretical support for listening as a multidimensional concept and in the belief that individuals had a dominant, preferred listening style (Weaver, Watson, and Barker, 1996). *The Listening Styles Profile* "was designed to identify habitual listening responses and to encourage participants to think about how preference traits might be expressed in actual communication settings" (Watson & Barker, 1995, p. 2).

The initial items for the *Listening Styles Profile* were selected by Watson and Barker from those behaviors identified in the literature as well as from observations gleaned through their experience as consultants to business and industry. Applying a factor analysis to the items selected for inclusion, Watson and Barker (1995) identified four categories of listener behavior: people oriented, action oriented, content oriented, and time oriented.

To further examine the validity and reliability of the *Listening Styles Profile* prior to using it for this study, however, the researcher examined reviews of the instrument published in the *Mental Measurements Yearbook* and *Tests in Print* (Yearbook 14). The *Listening Styles Profile* was noted to have major limitations and any potential users were cautioned that "The lack of developmental, normative, validity, and reliability evidence make the meaning of the scores impossible to interpret" (Murray-Ward, Summary para.). In addition, reviewers noted that "The Listening Styles Profile represents an instrument that does not meet the Standards for Educational and Psychological Testing" (Ward, Summary para.).

Bodie and Worthington (2010) addressed the criticism of the consistently low estimates of internal consistency with the *Listening Styles Profile* in a research project designed to "provide the first confirmatory factor analysis of the LSP-16 [sic] to test the validity of its factor structure originally produced through exploratory methods and to provide a more informed analysis of internal consistency reliability estimates reported in the literature using this scale" (p. 84). The conclusion that Bodie and Worthington drew from their research on the *Listening Styles Profile* was that their study results were "consistent with past empirical work that has consistently reported low reliability estimates of the LSP-16 (sic)" (p. 85). However, the authors did capitulate to the fact that reliability is a product of the study being conducted and not that of the scale itself.

The Listening Styles Profile instrument used for the present study consisted of a series of 20 statements designed to identify individual listening preferences in participants (Watson and Barker, 1995). The instrument may be distributed to participants for individual completion, and it can be scored and interpreted by participants themselves. However, the statements comprising the *Listening Styles Profile* are written in such a fashion as to represent either the participant or another person the participant is assessing (e.g., a manager, supervisor, etc.). Therefore, each statement begins with "I/This person." The researcher in the present study elected to control for individual reading differences and to prevent confusion by not distributing the *Listening Styles Profile* instrument. Instead, the researcher instructed participants that the statements would be read to them, each one beginning with the pronoun "I" and referring to each individual participant. In addition, the researcher elected to read each statement only once. The researcher asked that participants respond to the statements based on how they listen overall—not in any one specific environment (i.e., home or work).

Demographics Survey. As a means of acquiring subjects' gender, subjects' majors, and the self-reported reasons for selection of said majors, the researcher added a gender identifier and two open-ended questions to the answer sheet for the *Listening Styles Profile* survey: What is your major? Why did you choose your major? Prior to the administration of the survey, subjects (if they desired to participate) were asked to respond to the demographics section of the answer sheet.

Study Procedures. Following an introduction and explanation of the study and the *Listening Styles Profile* instrument, including a review of the Informed Consent (including voluntary participation), the researcher distributed the answer sheet for *the Listening Styles Profile* survey and asked the participants to complete the demographics section. After allowing sufficient time for participants to complete the brief demographics questions, the researcher gave participants the following instructions regarding the *Listening Styles Profile*:

> *I will read 20 statements; each statement will be read ONLY ONE TIME. You will need to assess your actions when presented with the particular situation covered in the statement. Respond to each of the statements based on how you listen overall—not in one particular environment (i.e., class, work, home, etc.). You will use the scale provided on your answer sheet to respond as to whether you never, infrequently, sometimes, frequently, or always respond/act as the statement implies. For example, number one on the Listening Styles Profile says "When listening to others, I quickly notice if they are pleased or disappointed." How would you respond? When listening to others, do you quickly notice if others are pleased or disappointed frequently? Infrequently? Never? Sometimes? Always? On your answer sheet, beside number 1, circle the number that corresponds with your response (1 = Never; 2 = Infrequently; 3 = Sometimes; 4 = Frequently; 5 = Always). Questions?*

Following the explanation and response to participant questions, if any, the researcher continued with the remaining 19 statements.

After the participants completed the *Listening Styles Profile*, the researcher distributed a Scoring Sheet. The Scoring Sheet was divided into four sections: People Oriented, Action Oriented, Content Oriented, and Time Oriented. The corresponding statement numbers were also included under each section so that participants knew how and where to transfer their responses. Participants were asked to count only the number of 4 and 5 responses they circled in each of the sections identified on the Scoring Sheet and to record the total in each of the four section boxes. The researcher informed participants that their highest totals indicated their strongest listening preferences.

The researcher explained to participants that no one listening preference was better—or best—but that people have unconscious preferences for listening based on their energy cycles, their likes and dislikes of types of information, their surroundings or environment, and their choice of information medium (telephone, face to face). The researcher described each listening preference type, providing the positives and negatives of each. In addition, each participant was provided with a handout containing the *Listener Profile Interpretation Guide* for further review.

For participants who had high scores in two or more preference categories, the researcher explained that multiple listening preferences are common. One preference will tend to dominate the other based on factors such as time pressures, interest in a speaker or topic, setting or environment, and/or energy levels.

In those cases where participants were unable to identify their listening preferences (they had no 4s or 5s as responses to the statements), the researcher advised participants that the reason their results may have indicated no listening preference is that they may simply tend to avoid listening. At times, listening avoidance may be a temporary behavior due to information overload or burnout or the desire to receive information through other channels (reading). However, participants were cautioned that continual listening avoidance—regardless of situation, task, topic, or person—will lead to problems in the workplace, the home, and any other settings where they are expected to listen.

The researcher collected participants' answer and scoring sheets. Each set of answer/scoring sheets was assigned an identifier consisting of the two-letter state abbreviation representing the location of the university and a numeral (consecutively numbered). The data from each set of answer/scoring sheets was transferred to an Excel spreadsheet, and the original documents stored in a secure location. The IBM Statistical Package for the Social Sciences was used to compute frequencies regarding Business Communication students' gender, major, and listening preference(s).

DATA ANALYSIS

Usable data was obtained from 484 business communication student participants. Of these, 283 participants (58.5%) were from a state-supported mid-Atlantic university and 201 (41.5%) were from a southern state-supported university. The business communication course at both universities included the same topics. The participants were not grouped according to classification (i.e., sophomore, junior, etc.) as the business communication course is offered to students enrolled in their junior or senior year at both universities. The data of importance in this study was the gender of each participant, the choice of major of each participant, followed by the identification of each participant's preferred listening style(s).

Student participants were asked to respond to the question—What is your major?—in the space provided on the questionnaire answer sheet. Because student participants were allowed to enter their own identifying major information rather than selecting from a checklist of majors, some of the major titles were incorrect or contained additional terms not considered part of the official major title at either institution. The Business Management and Management major groups were combined, as were the Computer Information Systems and Management Information Systems groups.

The participant group was comprised of 298 males (61.3%) and 188 females (38.7%). However, two of the male participants failed to answer the demographics survey in its entirety, leaving off the title of their respective majors. Because of that omission, these two participants were excluded. Thus, the resultant participant group was comprised of 296 males (61.2%) and 188 females (38.8%).

The breakdown of student participants by major is presented in Table 1 below.

Table 1

STUDENT PARTICIPANTS' MAJORS

MAJOR	NUMBER OF PARTICIPANTS	PERCENT
Accounting	60	12.4
Advertising	2	.4
Aerospace (all concentrations)	19	3.9
Business Administration	30	6.2
Business Education	7	1.4
Business Management/Management	52	10.7
Business Technology Support	14	2.9
Communication Media	3	.6
Computer/Management Information Systems	54	11.1
Computer Science	3	.6
Concrete Industrial Management	7	1.4
Consumer Affairs	6	1.2
Criminology	2	.4
Economics	1	.2
Entrepreneurship	15	3.1
Fashion Merchandising	3	.6
Finance (all concentrations)	47	9.7
French for International Trade	1	.2
Human Resource Management	20	4.1
Industrial Management	2	.4
Interior Design	7	1.4
International Business	7	1.4
Spanish for International Trade	1	.2
Journalism (all concentrations)	1	.2
Marketing (all concentrations)	80	16.5
Music	1	.2
Office Management	1	.2
Organizational Communication	1	.2
Political Science	1	.2
Psychology	2	.4
Public Relations	3	.6
Safety Science	15	3.1
Sociology	1	.2
Spanish	1	.2
Sports Administration/Sports Management (all concentrations)	11	2.3
Television Production	2	.4
Theatre	1	.2

Because several of the self-reported majors had minimal student participant numbers and an analysis of the data would not have elicited valid findings, the researcher collapsed the individual majors into two larger categories: Business-related majors and non-business related majors. A breakdown of the majors by college (and by institution) is presented in Table 2 below.

Table 2
BUSINESS-RELATED AND NON-BUSINESS RELATED MAJORS

MAJORS*	MID-ATLANTIC UNIVERSITY	SOUTHERN UNIVERSITY
Accounting	College of Business (COB)	College of Business (COB)
Aerospace (all concentrations)		College of Basic and Applied Science (CBAS)
Business Administration		COB
Concrete Industry Management		CBAS
Finance	COB	COB
Business/Pre-Law Track	COB	
Economics	College of Humanities and Social Sciences (CHSS)	COB
Entrepreneurship	COB	COB
Management (all concentrations)	COB	COB
International Business	COB	
Management/Computer Information Systems	COB	COB
Marketing	COB	COB
Business Technology Support	COB	
Business Education	COB	COB
Office Management		COB
Communications Media	College of Education and Educational Technology (CEET)	
Mass Communication (with concentrations in Advertising, Electronic Media Communication)		College of Mass Communication (CMC)
Recording Industry (with concentration in Music Business)		CMC
Consumer Affairs	College of Health and Human Services (CHHS)	
Fashion Merchandising	CHHS	
Interior Design	CHHS	
Organizational Communication		College of Liberal Arts (COLA)
Physical Education and Sport (all tracks)	CHHS	
Health and Physical Education	CHHS	
Safety Science	CHHS	

Criminology	CHSS	
French for International Trade	CHSS	
Journalism	CHSS	
Political Science	CHSS	
Sociology	CHSS	
Spanish for International Trade	CHSS	
Computer Science	College of Natural Sciences and Mathematics (CNSM)	
Psychology	CNSM	
Theatre		COLA

*These majors were housed in the designated colleges at the time of the study, 2002-2004, 2007-2010.

All majors housed in the College of Business were designated as business-related; those not housed in the College of Business were designated non-business related. Both business-related and non-business related majors were assigned a numeric designation to allow for data analysis using the IBM Statistical Package for the Social Sciences (SPSS).

Frequencies were computed for students' self-reported listening preferences. Table 3 below presents the descriptives based on gender (1 = males and 2 = females) and self-reported listening preference. As can be seen from the information in this table, the majority of participants indicated their listening preference to be people oriented (n = 311), with males (n = 173) comprising the bulk of the group. Content-oriented listeners were the next largest group (n = 75) followed by action-oriented listeners (n = 58). Time-oriented listeners were the smallest group (n = 37).

Table 3
Descriptives by Listening Preference and Gender

		N	Mean	Std. Deviation	Std. Error
People	1	173	4.32	.505	.038
	2	138	4.37	.484	.041
	Total	311	4.34	.496	.028
Action	1	43	4.14	.351	.053
	2	15	4.27	.458	.118
	Total	58	4.17	.481	.050
Content	1	53	4.30	.463	.064
	2	22	4.05	.213	.045
	Total	75	4.23	.421	.049
Time	1	18	4.22	.428	.101
	2	19	4.16	.375	.086
	Total	37	4.19	.397	.065

A more in-depth review of the resulting data revealed that 129 of the study participants (n = 484) possessed no listening preference (26.7%) and that 103 participants (21%) had more than one listening preference. The remaining 252 participants had only one listening preference, the most prevalent being people-oriented.

A further examination of the data related to study participants (n = 129) with no identifiable listening preference revealed that

- 96 (74.4%) were male; 33 (25.6%) were female; and
- 108 (83.7%) were business majors; 21 (16.3%) were non-business majors.

Study participants (n = 103) with multiple listening preferences were predominantly male (n = 65 [63.1%]; 38 (36.9%) were female; 89 (86.4%) were business majors; 14 (13.6%) were non-business majors; 94 (91.3%) were people-oriented listeners; 62 (60.2%) were content-oriented; 42 (40.8%) were action-oriented; and 29 (28.2%) were time-oriented.

Initial frequencies revealed that male Business Communication students were predominantly people-oriented listeners (58%). The majority of male Business Communication students were Business majors (82%). The least identified listening preference among the male students was time oriented (6%). Content-oriented listening was the second most often identified preference (18%) followed by action-oriented listening (15%).

Female Business Communication students were similar to their male counterparts in their identified listening preferences. The majority of female Business Communication students were people-oriented listeners (73%) as well as Business majors (76%). The least identified listening preference among the female students was action oriented (8%). Content-oriented listening was the second most identified preference among female students (12%) followed closely by time-oriented listening (10%).

Upon first glance, gender does not seem to be a factor in identified listening preferences between male and female Business Communication students (the majority of both male and female students identified themselves as people-oriented listeners). However, the researcher used the IBM Statistical Package for the Social Sciences (SPSS) program to run an ANOVA to determine if a possible correlation existed between listening preference and gender of participants. The results presented in Table 4 indicate that the gender effect is not statistically significant at the .01 level.

Table 4

One-Way Analysis of Variance of Perceived Impact of Gender on Participant's Self-Reported Listening Preference

		Sum of Squares	df	Mean Square	F	Sig.
People	Between Groups	.161	1	.161	.656	.418
	Within Groups	76.025	309	.246		
	Total	76.186	310			
Action	Between Groups	.180	1	.180	1.243	.270
	Within Groups	8.096	56	.145		
	Total	8.276	57			

Content	Between Groups	1.022	1	1.022	6.155	.015
	Within Groups	12.124	73	.166		
	Total	13.147	74			
Time	Between Groups	.038	1	.038	.237	.629
	Within Groups	5.637	35	.161		
	Total	5.676	36			

On closer examination of the descriptive data, one can see that while male students indicated that time-oriented listening was their least preferred mode, female students identified time-oriented listening as a close third in order of preference for listening. Females seemed to find action-oriented listening the least favorable mode. From this information, one might hypothesize from a sociological perspective that females are more focused on time constraints than are their male counterparts and thus prefer to manage and save time when listening.

In comparing Business Communication students' identified listening preferences by region, regardless of whether students were taking the course at a mid-Atlantic state-supported university or a southern state-supported university, the outcome was the same. Business Communication students at the mid-Atlantic university were predominantly people-oriented in their listening preference (67%); Business Communication students at the southern state-supported university were also predominantly people-oriented in their listening preference (61%).

As this study was conducted over a five-year period, the first portion taking place between 2002 and 2004 at the mid-Atlantic state-supported university, and the second portion taking place between 2007 and 2010 at a southern state-supported university, the researcher sought to examine changes in Business Communication students' listening preferences over time, if applicable. Based on an examination of the resulting data, no changes were noted. Business Communication students were identified as predominantly people-oriented listeners, regardless of the timeframe. In addition, Business Communication students who had no identified listening preference were almost equally divided between regions of the country—68 from the mid-Atlantic state-supported university and 61 from the southern state-supported university. Based on the timeframe encapsulated in this study, this finding further indicates no change in listening preference across time for these participants.

Business Communication students—regardless of major, gender, region of the country, or time of the study—identified themselves as having a people-oriented listening preference, either as a sole preference or in conjunction with one or more additional preferences. Of course, the sample was comprised primarily of business majors; therefore, **a relationship between major and listening preference cannot be extrapolated**. Nonetheless, the findings in the present study indicate that business majors as a whole, regardless of specific concentrations within the College of Business, have a people-oriented listening preference.

SUGGESTED STRATEGIES FOR DEVELOPING LISTENING SKILLS

Research has shown that listening is one of the communication skills most desired by employers. Without a clear understanding of the how and why of listening preferences, students are ill-equipped to work on improving their listening skills to further their employment opportunities. The following steps offer instructors a way to help students identify their listening preference(s) and suggestions for teaching methods to help students adapt their listening to meet the needs of specific situations and environments.

1. Get to know the students. Students are more likely to listen to an instructor who takes the time to learn their names, their interests, and their hobbies. Students want instructors who are three-dimensional and not merely lecturers. So, they desire to see the *real* person—someone who is fallible—rather than a disconnected, impersonal instructor (Artze-Vega, 2012).
2. Include classroom exercises designed to test students' listening skill. Make sure these exercises vary in length, in context, and in requirements (e.g., short-answer pop quiz, paragraph summary, follow-the-instructions activities).
3. Administer a listening styles questionnaire to help students identify their listening preferences. After students have completed some class exercises to test their listening skills, they will be very interested in better understanding how to listen more effectively. Knowing what their preferences are for listening will also help students better understand why they cannot remember certain information and why certain speakers and topics do not pique their interest. Students who identify with only one (or none) listening preference should be encouraged to adapt their listening to all situations and environments. Employers want to hire prospective employees who are adaptable, who use critical thinking skills, and are problem solvers. Students who fail to learn how to adapt their listening preferences to meet the needs of a specific situation will find employment difficult to obtain or to retain.
4. Have students lead class discussions. Having students talk out important points can be very illuminating to classmates. As students work through the issues and attempt to navigate important information in order to share their own viewpoints, other students find this process helpful—often more so than hearing an instructor lecture on the same topic.
5. When instructors need to discuss important or pertinent points, make those lectures short in duration—mini lectures. If material requires a lengthier discussion, engage the students in group or team activities to ensure that learning is occurring.
6. Model good listening behavior. If instructors wish to help their students become better listeners, they must first model appropriate listening behavior. Rephrasing or paraphrasing what students say is a good method for demonstrating effective listening skills.
7. Keep students engaged in class. If students know that instructors will randomly call on them or ask them to perform a task, they are much more likely to remain focused and attentive.

In K-12 education, listening has garnered a renewed focus in the curriculum. Listening standards are now part of the Common Core. In addition, these standards also focus on the integral role that listening plays in collaboration and communication. These two elements—collaboration and communication—are "two of the four Cs of 21st Century Learning" (Council of Chief State School Officers, 2012, p. 1).

A revival of the emphasis on listening in secondary education is reflective of the importance of this skill to career and college readiness. Therefore, college and university faculty need to encourage students to develop a deeper level of listening. Students need to be reminded of the importance of listening—its relationship to success in the classroom, the workplace, and life—and should be encouraged to practice their listening skills at every opportunity. Business Communication instructors have an opportunity to impress upon students the need for accountability in listening and help them to refine their listening skills through the use of discussions, classroom activities, and modeling behavior.

CONCLUSION

For most people, listening became a secondary skill once talking gained importance in terms of attention seeking. Listening instruction is not common in educational venues (mainly because it is not a measurable literacy skill), and most students navigate the entire process believing they understand what listening means. They have no idea that they have formed a preference for listening, one that limits their ability to effectively communicate. As can be seen from the findings in the present study, business majors have one predominant listening preference instead of a compilation of all four preferences. An effective listener is one who varies his/her preference for listening based on the context and environment. If students have only one listening preference, then they are not listening effectively in at least 75% of the situations in which they find themselves. Therefore, these students simply tune out when they find themselves in situations that do not appeal to their one listening preference.

Business Communication instructors should help students identify their listening preferences and teach them ways to enhance their listening ability. By helping students to develop their listening skills, instructors will also be helping them to be more successful in the classroom, the workplace, and in life. After all, listening is a learned skill—with proper instruction and guidance, students can learn to practice effective listening.

RECOMMENDATIONS FOR FURTHER RESEARCH

After reviewing the findings in this study, the researcher makes the following recommendations:

1. Repeat the study with a more diverse population (include additional regions of the country in population and expand choice of majors beyond colleges/schools of business). Because the Business Communication course is usually required for business majors, the present study was limited with regard to any possible correlation between a student's listening preference and choice of career path. Student participants in the present study were

predominantly business majors and people-oriented listeners. Does that mean that ALL majors across varying regions of the country would be likely to self-report the same listening preference?

2. Add demographic variable of participant age or status (traditional versus nontraditional student) to determine whether these additional variables have any impact on listening styles preferences, regardless of major.

3. Add a learning styles indicator (such as Dunn and Dunn) to ascertain business communication students' learning styles, and use this information to determine if any correlation might exist between students' learning styles preferences and listening styles preferences. The researcher in the present study proposes that while learning styles research has been the most prevalent in the educational arena, listening styles preferences may have a larger impact on the way students learn than previously thought. If students have particular listening preferences (and their needs are not met in the classroom environment and students have received no instruction on ways to adapt their listening styles to particular environments or settings, individuals, or time constraints), then are these students really kinesthetic learners or visual learners or have they simply gravitated toward a method of learning to avoid changing their listening preferences?

4. Add an interpersonal communications skill assessment. With the increasing reliance on technology, college students have become more focused on texting than talking. Another interesting facet of research may involve an examination of the evolution of communication—beyond speaking and listening to reading and keying. How has this overreliance on text affected students' interpersonal communication skills, particularly that of listening?

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THE EFFECT OF SUPERVISOR CHARACTERISTICS ON SUBORDINATES' WORK-LIFE BALANCE: A DYADIC ANALYSIS IN JAPAN

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ABSTRACT

This research examined the effect of supervisor characteristics (supervisors' support and role modeling) and crossover effect of supervisors' work-life balance on subordinates' work-life balance. The author tested three hypotheses based on literature review using a sample of 285 subordinates and their immediate supervisors (N=71) by hierarchical multiple regression analysis. Survey results from supervisor-subordinate dyads show that supervisors' support and role modeling have a strong impact on subordinates' work-life balance, and the crossover effect of supervisors' work-life balance on subordinates' work-life balance was confirmed.

INTRODUCTION

Since the change of economic situations and social norms drives diversification at the workplace, the needs for work style also become diverse. This changing situation makes it difficult to manage employees using traditional methods, which rely on male employees to work full-time as comprehensive workers. In response to this situation, work-life balance (hereafter, WLB), which comes from the civil rights and women's movements in the US in the 1960s, receives much attention in Japan. Given employees' needs and the governmental support for WLB, the number of WLB benefits, such as short-time work systems, flexible schedules, parental leave, and family care leave have been offered by organizations for decades. However, many work organizations have implemented WLB benefits, while these benefits are not fully utilized. For example, parental leave is granted to both women and men according to the Child Care and Family Care Leave Law, but according to the Basic Survey of Gender Equality in Employment Management of 2014, the acquisition rate of parental leave by men was only 2.30% in Japan compared to 86.6% for women. Against this background, there still remains a gender-specific attitude towards roles: a husband's job is to earn money, while a wife's job is to look after the home and family in Japanese society and the workplace (Nakazawa, 2007). Sato and Takeishi (2004) articulated that the low acquisition rate of men's parental leave cannot be explained through assuming that men do not prefer to take parental leave, and therefore there must be other factors that prevent men from taking parental leave. Though this example is specific to the case of parental leave, almost all the same issues can be found through other WLB benefits, specifically that individual preference is not the reason for underexploited WLB benefits.

WLB is currently widely known, and the interest of WLB studies has shifted from what kind of effect results from WLB to what is needed to achieve WLB. It is often pointed out that informal support from the organization is necessary to achieve WLB (Allen, 2001). More studies, especially quantitative researches, are necessary for revealing the relationship between WLB and the workplace to achieve employees' WLB as too few studies focus on the internal work environment in Japan. Previous studies have revealed that long working hours prohibit employees from achieving WLB, especially in Japan (Ogura, 2008; Sato, 2008). However, it is difficult for employees to manage their working hours to establish a healthy WLB. Therefore, it is necessary to investigate other factors that have effects on the achievement of WLB in the workplace.

In this study, I focus on the presence of supervisors in the workplace as supervisors are frequently the key gatekeepers for subordinates in setting organizational practices in the workplace (Carlson, Ferguson, Kacmar, Grzaywacz & Whitten, 2011). The effect of supervisor characteristics and the crossover effect of immediate supervisors' own practices of WLB on subordinates' WLB are investigated.

LITERATURE REVIEW

Supervisor characteristics

Allen (2001) contended that the implementation of WLB benefits can help employees manage multiple work and non-work responsibilities, while the availability of these benefits alone does not address the fundamental aspects of the organization that can inhibit employees from successfully balancing career and family. For example, WLB programs often do not affect original norms and values that dissuade employees from using benefits (Allen, 2001; Lobel & Kossek, 1996). Moreover, employees often perceive that the organization encourages workers to devote themselves to their work at the expense of other life domains (Allen, 2001; Lobel & Kossek, 1996). This belief causes employees to believe that the organization's environment does not change to facilitate WLB (Allen, 2001). Additionally, the use of WLB benefits is not enthusiastically embraced by employees because they perceive that utilizing such benefits may have a negative consequential effect on their career (Allen, 2001; Frye & Breaugh, 2004; Judiesch & Lyness, 1999). Based on these previous studies, it is obvious that offering WLB benefits alone is not enough to achieve employees' WLB.

According to a Japanese survey on why employees do not use the short-time work system, the top answers included responses such as that it "poses a problem for business process," responders "cannot obtain consent from supervisor," feel an "uncertainty over career," and "cannot obtain consent from coworkers" (NLI Research Institute, 2008). Although this example specifically addressed the short-time work system, such responses to other WLB benefits are common. The lack of understanding in the workplace or anxiety over careers prevents employees from taking advantage of WLB benefits. This status quo indicates that it is essential for employees to deeply understand the significance of WLB benefits in the workplace.

The key person who can disseminate WLB in the workplace is the supervisor. Supervisors are frequently gatekeepers for subordinates in setting organizational practices in the workplace (Carlson et al., 2011). Whether subordinates can utilize WLB benefits or not largely depends on supervisors' tolerance (Hammer, Kossek, Zimmerman & Daniels, 2007). Allen (2001) and Hammer et al. (2007) conducted major studies that focused on supervisors' WLB supportive behaviors. These studies contended the importance of the supervisory behavior, which encourages employees to use WLB benefits. In particular, Hammer et al. (2007) pointed out the importance of Family Supportive Supervisory Behaviors (hereafter, FSSB), and they indicated the concept of FSSB according to the four following dimensions: emotional support, instrumental support, role model behaviors, and behaviors related to the dual agenda of how work is structured and managing effectively in the workplace. Moreover, Hammer et al. (2007) indicated that FSSB is expected to influence employees' perceptions of supervisor support for work-family conflict and work-family enrichment reports, and this is significant as such reports are expected to impact the individual, familial, and organizational outcomes. Based on these previous studies, subordinates' perception of supervisors' support appears to relate to a positive WLB outcome.

Supervisors' WLB

Recent work-family studies, focusing on such topics as positive spillover, work-family enrichment, and work-family facilitation focus on the relationship between work and life where the qualities of both are mutually facilitated (Fujimoto, 2011). The fact that work and life facilitate each quality expresses that WLB achievement relates to the improvement of working quality. This indicates that the achievement of WLB by supervisors may bring benefits to other employees.

The process wherein one's experience affects the experience of another in the same social environment is referred to in literature as "crossover" (Carlson et al., 2011; Greenhaus & Powell, 2006; Westman, 2001). Crossover occurs, for example, within a particular domain such as the workplace or the family, and is an inter-individual transmission of well-being between closely related individuals (Bakker, Shimazu, Demerouti, Shimada & Kawakami, 2011). Previous crossover studies investigated the crossover process in the family, supervisor-subordinate relationship, and between coworkers. From the perspective of WLB, most existent studies examine the crossover of strain among dual-earner couples (Shimazu, 2014). Although there are several crossover effects found in the family, studies that investigate the crossover effect in the workplace are very few (e.g., Carlson et al., 2011; Westman & Etzion, 1999).

If one's WLB achievement increases work efficiency, it may make for a lighter workload and increase work efficiency in the entire workplace. Further, good communication in the workplace is expected to result from the reduction of stress that comes from achieving WLB. In particular, supervisors have a significant impact on subordinates in the workplace, and therefore supervisors' WLB achievement may have positive effects on subordinates' WLB.

THEORITICAL FRAMEWORK AND HYPOTHESES

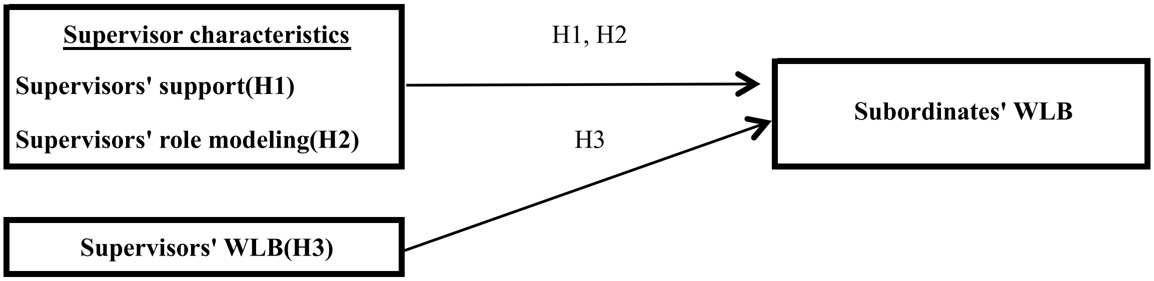
Three hypotheses are tested in this study: hypotheses 1 and 2 refer to "supervisor characteristics," while hypothesis 3 regards the crossover effect of "supervisors' WLB." Figure 1 illustrates the framework of this study. The hypotheses were tested using hierarchical multiple regression analysis.

H1 *Supervisors' support influences subordinates' WLB positively*

H2 *Supervisors' role modeling behavior influences subordinates' WLB positively*

H3 *Supervisors' WLB influences his/her subordinates' WLB positively*

Figure1. Theoritical framework



METHODS

Sample and Procedure

The data used in this study is based on the questionnaire surveys administered to the employees of a Japanese engineering company on September 2013. There were two types of questionnaires distributed: one was intended for supervisors, and the other for subordinates. In total, 71 responses from supervisors and 300 responses from subordinates were collected. Due to a lack of data in some questionnaires, 285 responses from subordinates and 71 responses from supervisors were eventually utilized. In this study, subordinates' questionnaire data were mainly used; however, parts of variables were derived from supervisors' questionnaire data. Ratings were completed on a six-point scale (1 = Strongly disagree to 6 = Strongly agree).

Measures

Subordinates' WLB (Dependent Variable)

The dependent variable used in this study was subordinates' WLB. Subordinates' WLB was measured using a three-item scale: "I am satisfied with both work and non-work life," "I can play a role both in work and non-work life," and "I can balance my time both in work and non-work life." The internal consistency (alpha) for this sample was 0.88.

Supervisor Characteristics (Independent Variable)

Two variables, supervisors' support and supervisors' role modeling, were used as supervisor characteristics. Supervisors' support was measured modifying a seven-item social support scale developed by Komaki and Tanaka (1996) and Rousseau and Aube (2010). Two types of support, instrumental and emotional, were used. Supervisors' role modeling was measured modifying a three-item scale developed by Hammer, Kossek, Yragui, Bodner, and

Hanson (2009). Both variables referred to supervisors' behavior and were modified based on a original scale, therefore there is a possibility that these two variables are indistinguishable. To confirm the difference of these variables, I conducted exploratory factor analysis with a promax rotation of principal axis factoring. This approach of testing the aforementioned items produced two factors, shown in Table 1. Factor 1 was interpreted as "supervisors' support" because it consisted of items from instrumental and emotional support of social support. Factor2 was interpreted as "supervisors' role modeling" because it consisted of items from supervisors' role modeling. The internal consistency (alpha) for the supervisors' support was 0.94, and was 0.93 for the supervisors' role modeling.

Table 1. Expratory factor analysis of supervisor characteristics (principal axis factoring, promax rotation)

Factor	ⅠSupervisors' Support	Ⅱ:Supervisors' Role Modeling
Items		
My supervisor helps me when I am in trouble at my work.	**0.972**	-0.159
My supervisor listens to me when I worry about my work.	**0.948**	-0.112
My supervisor helps me solve problems at work.	**0.848**	0.04
My supervisor cheers me on when I feel down at work.	**0.742**	0.165
My supervisor listens to me carefully when I have personal problems.	**0.729**	0.174
My supervisor backs me up when my workload is heavy.	**0.659**	0.142
My supervisor communicates what he or she expects from me	**0.577**	0.231
My supervisor demonstrates effective behaviors in how to juggle work and nonwork balance.	-0.069	**1.007**
My supervisor demonstrates how a person can jointly be successful on and off the job.	-0.026	**0.986**
My supervisor is a good role model for work and nonwork balance.	0.162	**0.681**
Eigenvalue	5.76	1.06
Percentage of variance explained	64.03	11.86
Factor Correlation	□ -□	0.641

Supervisors' WLB (Independent Variable)

Supervisors' WLB was measured using the same three-item scale used to measure subordinates' WLB. The internal consistency (alpha) for this sample was 0.90. Data was composed of immediate supervisors' responses and is considered dyadic data.

Control Variables

Age, woman dummy, engineer dummy, with spouse dummy, with children dummy, and overtime hours (per month) were included as control variables. In this study, overtime hours were used as a control variable. Therefore, each variable impact without the effect of overtime hours can be observed.

RESULTS

The means, standard deviations, and correlations of all study variables are presented in Table 2.

Table 2. Descriptive statistics and correlations for all variables

	M	SD	1	2	3	4	5	6	7	8	9	10
1 Subordinates' WLB	3.51	1.04	1.00									
2 Age	36.84	9.24	0.14*	1.00								
3 Woman dummy	0.36	0.48	0.09	0.17**	1.00							
4 Engineer dummy	0.52	0.50	-0.16**	-0.29**	-0.54**	1.00						
5 With spouse dummy	0.58	0.49	0.13*	0.27**	-0.19**	0.09	1.00					
6 With children dummy	0.48	0.50	0.12*	0.32**	-0.08	0.01	0.69**	1.00				
7 Overtime hours (per month)	18.72	14.95	-0.34**	-0.19**	-0.31**	0.42**	0.08	0.06	1.00			
8 Supervisors' support	3.75	0.98	0.31**	-0.20**	-0.07	0.01	0.03	-0.05	-0.04	1.00		
9 Supervisors' role modeling	2.99	1.00	0.32**	-0.13*	-0.16**	-0.05	0.02	-0.01	-0.10	0.67**	1.00	
10 Supervisors' WLB	3.58	1.00	-0.05	0.16**	0.10	-0.11	-0.03	0.06	-0.11	-0.07	-0.05	1.00

* p<0.05, **p<0.01

Table 3 represents the result of hierarchical multiple regression analysis. Model 1 is an analysis utilizing control variables, while Model 2 is an analysis including supervisor characteristics variables. Model 3 is an analysis including supervisors' WLB.

Compared to all models, Model 3 predicted subordinates' WLB the most (Adj. R^2 = 0.272, p<.100). Model 3 investigated the relationships between subordinates' WLB and supervisors' support, and supervisors' role modeling and crossover effect of supervisors' WLB. These results show both supervisors' support and supervisors' role modeling were positively associated with subordinates' WLB. In addition, supervisors' WLB was negatively associated with subordinates' WLB. In other words, H1 and H2 were accepted, while H3 was rejected.

In addition, long working hours, which was used as a control variable, had a strong negative relation with WLB. This result is in accordance with the results of previous studies (e.g., Ogura, 2008; Sato, 2008). With regard to other control variables, woman dummy, engineer dummy, with spouse dummy, and with children dummy were not associated with subordinates' WLB, and only age was associated with subordinates' WLB positively. This result indicates that the difference of sex, job category, marital status, and child status are not related to WLB.

Table 3. Estimates for models predicting subordinates' WLB

Dependent Variable: Subordinates' WLB	Model 1	Model 2	Model 3
Constant	0.197	-0.204	-0.245
Age	0.002	0.01†	0.011†
Woman dummy	-0.001	0.099	0.103
Engineer dummy	-0.022	0.065	0.064
With spouse dummy	0.152	0.184	0.202
With children dummy	0.213	0.125	0.102
Overtime hours (per month)	-0.024***	-0.02***	-0.021***
Supervisors' support		0.213**	0.21**
Supervisors' role modeling		0.144*	0.144*
Supervisors' WLB			-0.091†
N	285	285	285
R2	0.158	0.268	0.272
□ R2	0.158	0.11	0.007
adj. R2	0.14	0.247	0.252
F-statistics	8.703***	20.785***	2.751†

†p<.100; *p<.05; **p<.01; ***p<.001

DISCUSSION

First, supervisors' support and supervisors' role modeling have positive effects on subordinates' WLB. In the case of supervisors' support, emotional and instrumental supports provided by supervisors ease subordinates' anxiety over their work, and this in turn improves subordinates' WLB. Further, supervisors' role modeling, or employees perceiving supervisors' attitude to serve as a model of WLB, eases subordinates' hesitation and anxiety over his/her WLB, and also improves subordinates' WLB. For example, as previously explained, according to a Japanese survey on why employees do not use the short-time work system, the top answers included responses such as "can't obtain consent from supervisor" and "uncertainty over career" (NLI Research Institute, 2008). However, if subordinates perceive their supervisors' attitude to serve as a model of WLB, subordinates' hesitation and anxiety over these problems is alleviated, and subordinates' WLB is improved upon. These results revealed the importance of subordinates' perception to supervisors' support and role modeling for subordinates' WLB.

Second, supervisors' WLB had a negative crossover effect on subordinates' WLB. In other words, the better that supervisors' WLB becomes, the worse the WLB of subordinates becomes. This result was directly opposed to the proposed hypothesis, and it is logical to consider that the subordinates' WLB was somehow hindered by the supervisors' higher WLB. One possible explanation is the difference of ideal WLB between supervisor and subordinate.

For example, supervisors' ideal WLB involves placing a high priority on work life, while subordinates' ideal WLB places emphasis on the importance of life outside of work. In the workplace, the supervisor holds power over subordinates, so subordinates feel obliged to fit their ideal WLB into their supervisors' ideal WLB. Applying this explanation to the previous example, supervisors may be able to achieve their WLB by giving priority to work, but when subordinates give priority to work instead of non-work life, their WLB is possibly considered as not achieved. Otherwise, there is a possibility that supervisors may place a high priority on their lives outside of work, thereby placing the pressures and obligations of their work onto their subordinates and in turn hindering their subordinates' WLB.

It is also possible that structural distance between supervisors and subordinates is related to this result. Avolio, Zhu, Koh and Bhatia (2004) examined the hypothesis which poses that structural distance between leaders and followers moderates the relationships between transformational leadership and organizational commitment, because previous studies pointed out that physically close leaders have more opportunities to interact directly, establish personal contact, and build relationships so that trust between followers and close leaders is higher than between followers and distant leaders. However, contrary to their hypothesis, the closer structural distance between leaders and followers, the weaker the impact of transformational leadership to organizational commitment was. In response to this result, Avolio et al. explained that it is possible that close followers are more likely to see some of the inconsistencies in their leader's behavior, which may affect how committed and empowered they remain in the organization. Their study focused on leadership, however, which is common in focusing on supervisor-subordinate relationship, so it is possible to assert the same in this study, that structural distance between subordinate and supervisor affects the result. For example, the closer structural distance between subordinates and supervisors, the greater the possibility that subordinates need to fit their WLB into supervisors' WLB. As a consequence, supervisors may push their work onto their subordinates, and thus subordinates' WLB may be disturbed.

Implications

In this study, it is revealed that supervisors' support is positively associated with subordinates' WLB. It is also revealed that supervisors' role modeling was positively associated with subordinates' WLB. Therefore, to achieve subordinates' WLB at the workplace, supervisors' supportive behaviors are essential. Meanwhile, supervisors' WLB had a negative crossover effect to subordinates' WLB. This result suggests that the mere achievement of supervisors' WLB does not have a positive effect on subordinates' WLB. It is asserted that supervisors should offer supportive behavior to their subordinates based on the acknowledgement of the significance of WLB (Allen, 2001; Kato, 2009; Takeishi, 2011). To support the subordinates' WLB, supervisors must understand the overall importance of WLB. These findings suggest that supervisors must display an ability to achieve their WLB with a full understanding of the aim of WLB and making efforts to help their subordinates perceive them as trying to be role models in order to achieve their subordinates' WLB in the workplace.

This study did not investigate the direct effects of WLB practices, but revealed the effects of supervisors' characteristics on subordinates' WLB. To achieve WLB at the workplace, supervisors who are frequently key gatekeepers for subordinates must take the initiative in having a keen interest in WLB, and must create a workplace environment where employees can achieve WLB.

Limitations and Future Research

There is the possibility that the individual ideal WLB and structural distance were associated with the results of this study. However, this study did not conduct research on individual ideal WLB and structural distance between subordinate and supervisor. Therefore, it is impossible to further discuss this negative relation. However, since the individual ideal WLB and structural distance are important factors to understanding the relationship between supervisors' WLB and subordinates' WLB in greater depth, this still remains to be a topic for future research.

APPENDIX

Supervisors' support, Supervisors' role modeling and WLB Scales

Supervisors' support (Komaki & Tanaka, 1996; Rousseau & Aube, 2010)

1. My supervisor helps me when I am in trouble at my work.
2. My supervisor listens to me when I worry about my work.
3. My supervisor helps me solve problems at work.
4. My supervisor cheers me on when I feel down at work.
5. My supervisor listens to me carefully when I have personal problems.
6. My supervisor backs me up when my workload is heavy.
7. My supervisor communicates what he or she expects from me

Supervisors' role modeling (Hammer et al., 2009)

1. My supervisor demonstrates effective behaviors in how to juggle work and nonwork balance.
2. My supervisor demonstrates how a person can jointly be successful on and off the job.
3. My supervisor is a good role model for work and nonwork balance.

WLB

1. I am satisfied with both work and non-work life.
2. I can balance my time both in work and non-work life.
3. I can play a role both in work and non-work life.

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THE EFFECT OF A "MICRONEGOTIATION" TECHNIQUE ON TEAM INTERACTIONS

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ABSTRACT

Conflict can have detrimental effects on team interaction, performance, and member satisfaction, so research on tools and techniques aimed at reducing or resolving conflict is crucial. This study trained the leaders of teams made up of health profession students on a micronegotiation technique (Rogers & Lingard, 2006) to measure its effect on levels of task conflict, relationship conflict, team performance, and team member satisfaction. The research was conducted at a mid-size, Midwestern university and included 148 students from Radiology, Physiology, and Microbiology courses divided into 47 teams. No statistically significant differences were identified for any of the dependent variables between the groups whose leaders were trained in the micronegotiation technique and the groups whose leaders were not trained on the technique. While this may seem to indicate a shortcoming on the part of the technique, low levels of emotional investment in the process may have led to little group conflict to address. Additionally, the real value of the technique may be as a way for team leads to assess conflict strategies rather than as a resolution tool.

INTRODUCTION

When conflict exists between members of a team of professionals providing health care to patients, the breakdowns in communication and collaboration can have devastating effects. Finding ways to prevent or manage conflict is essential for all individuals involved in interprofessional teams, from managers to administrators to the individual professionals themselves. This study investigated the use of a micronegotiation technique (Rogers & Lingard, 2006) intended for use by surgeons in managing operating room conflict. The research looked at the effect of the technique on task conflict, relationship conflict, team performance and team member satisfaction on teams of undergraduate health profession students.

The literature review was completed using two methods. First, searches were conducted in EBSCOhost and PubMed using key words such as conflict, medical conflict, negotiations, medical errors, and medical conflict resolution. Those searches were delimited to years 1990 to present. The second method was reverse tracking of relevant articles using the reference list. In this method, reference lists in specifically relevant articles were reviewed and sources from the reference list then investigated.

The literature review suggests that there appears to be evidence of the negative impact of conflict on medical outcomes. Baldwin and Daugherty (2008) surveyed medical residents and found that those who reported experiencing higher rates of conflict with colleagues also reported higher rates of significant medical errors (SME) and adverse patient outcomes (APO). Higher rates of committing medical errors was also related to higher rates of residents reporting being humiliated or belittled. Baldwin and Daugherty (2008) found:

> Of the 2,811 residents who reported having no interprofessional conflict, 669, or 23.8% reported making a SME, with 3.4% APOs. By contrast, the 529 residents who admitted serious conflict with at least one other professional reported a total of 36.4% SMEs and 8.3% APOs. For the 193 reporting conflict with two or more other professional groups, the SME rate was 50.5% and 16% APOs. (p. 581)

Conflict comes with high social and economic costs. In medicine, the Institute of Medicine's (IOM) report To Err is Human (1999) stated that between 44,000 – 98,000 individuals died in hospitals each year as a result of medical errors and that these errors cost between $17 billion to $29 billion a year. The IOM indicated that "faulty systems, processes and conditions" were primary contributors to these medical errors (1999, p. 2) with communication and interaction of medical personnel being among the faulty systems. The Society of Actuaries (2010) determined that $1.1 billion was spent on short-term disability claims, and over 10 million excess days of work were missed as a result of medical errors. This expands the breadth of economic impact beyond only the organizational level to national and even international level given the context of the global marketplace. When considering Swanson's (1995) business perceptions of human resource development, addressing conflict and its effect would certainly seem to qualify as "a major business process, something an organization must do to succeed" (p. 207).

One of many accelerants for conflict within healthcare teams may be the conflict style employed by various parties. For example, Skjørshammer (2001) found that forcing and avoidance were the primary styles used by physicians in his study of conflict in Norway hospitals. This is not to suggest that the use of either the forcing or avoidance style is always inappropriate, but if a conflict is consistently not addressed or repeatedly shut down by one party through an exercise of power, it can have lasting effects on individuals' ability to collaborate effectively. In a medical setting, this may lead to less than optimal patient care (Baggs Schmitt, Mushlin, Mitchell, Eldredge, Oakes, & Hutson, 1999).

Medical environments are unique and as such require contextualized consideration for when teaching conflict management skills to healthcare professionals (Kaufman, 2011). Investigations on various methods for managing conflict and increasing collaboration and understanding among interprofessional teams are ongoing and necessary. One such method is the use of Interprofessional Education (IPE). There appears to be some evidence regarding the benefits of IPE for providers and patients (Carpenter, Barnes, Dickinson, & Wooff, 2006). As the use of IPE has increased, studies have focused on appropriate learning outcome expectations (Thistlethwaite & Moran, 2010) and ways to measure IPE's effect on participants (Thannhauser, Russell-Mayhew, & Scott, 2010).

Others tools, such as Crew Resource Management, have also been applied to medical and interprofessional teams to increase communication and collaboration (France, Stiles, Gaffney, Seddon, Grogan, Nixon, & Speroff, 2005; Haller et al., 2008; Lerner, Magrane, & Friedman, 2009; Mcgreevy, Otten, Poggi, Robinson, Castaneda, & Wade, 2006). Additionally, training on conflict and conflict resolution skills for medical personnel has also shown promising results in participant perceptions of conflict and behavioral change in reacting to conflict (Brinkert, 2011; Haraway & Haraway, 2005; Saulo & Wagener, 2000; Zweibel Goldstein, Manwaring, & Marks, 2008).

This study investigated the effect of teaching team leaders on the use of a micronegotiation technique as introduced by Rogers and Lingard (2006). The technique was recommended for use by surgeons for managing conflict within the operating room and addresses the issue of communication and active listening that are essential to resolving conflict (Back & Arnold, 2005; Gill, 1995). Rogers and Lingard (2006) recommended the following:

> Practice expedited negotiation as a conflict response process. Developing a pattern of this type of problem solving allows it to become a style. This "micronegotiation" should take less than a minute but consists of the following steps found in formal negotiation: Take a few seconds to allow for the control of emotions in a tense clinical situation, particularly if conflict has already occurred. Listen to the ideas or concerns of the other party and paraphrase or summarize them to indicate that they were heard. State your primary need or interest. It might be possible to suggest a solution, but it is important to indicate that there might be other reasonable options. Allow the other individual to react and express a respect for his position. Decide which conflict response will now be optimal. Problem solving is preferred whenever possible. (p. 572)

Before providing a description of the methodology for this study one point stands out that is worth discussing. The final sentence directs the leader to choose an optimal conflict response. This suggests that the technique may be less a conflict resolution technique and more a conflict resolution assessment technique, as it directs the user to gather information and then select the appropriate response. The difference is worth noting, but the benefit of the system comes in its ability to move the user into a collaborative mindset, rather than settling on avoidance or forcing, which Skjørshammer (2001) saw in his study. This will be discussed further in the discussion section.

METHODOLOGY

The effect of training on the micronegotiation technique was measured on levels of task conflict and relationship conflict as defined by Jehn (1994), as well as satisfaction and team performance, using a pre- and post-test design. Four research questions served to guide this study:

R1 *What effect does training on the micronegotiation technique have on task conflict in teams of health profession students?*

R2 *What effect does training on the micronegotiation technique have on relationship conflict in teams of health profession students?*

R3 *What effect does training on the micronegotiation technique have on team performance in teams of health profession students?*

R4 *What effect does training on the micronegotiation technique have on team member satisfaction in teams of health profession students?*

Participants

The study included 148 students from health profession and pre-health profession programs at a medium-sized, Midwestern, state university. The students came from four classes (radiology pre-clinical, radiology post-clinical, microbiology, and physiology) and were divided into 47 different teams with either three or four students in each team. Teams included only students from within the same class. This population was chosen for a variety of reasons chief among them was the fact that in studies included in previous meta-analyses looking at task conflict and relationship conflict (De Dreu & Weingart, 2003; de Wit, Greer & Jehn, 2012), none using health profession students could be located. Additionally, because many in this population would be or hoped to matriculate to health professions, such as radiology departments and medical school, it was an appropriate population for studying a technique aimed at medical teams. Permission was granted by the university's institutional review board prior to recruitment or data gathering.

Among the participants, 21 of the participants were Medical/Dental Education Preparatory Program (MEDPREP) students, 19 from the microbiology class and two from the physiology class. MEDPREP serves as an opportunity for students interested in pursuing medical school to prove their potential success in that field. Thus, students in the program hope to matriculate to dental or medical school. Radiology students (n=74) naturally move into health profession positions, meaning that of the 148 total participants, 95 (64.19%) intended to matriculate to health professions.

Monetary gift cards were used to heighten the emotional investment of the participants in the outcomes of their group tasks. Saavedra and Van Dyne (1999) found a statistically significant correlation between personal reward and emotional investment within work teams, which seems to support this method. Given that the activity was not part of the students' grade for the class, the monetary gift was intended to give the students incentive for trying to do well, which would hopefully lead to an increase in discussion among teams attempting to get the right answers. Team members from the four teams with the highest combined scores from the Lost at Sea: A Consensus-Seeking Task and the NASA Moon Survival Task received a gift card ranging in value from $30 - $10. Each member of the team finishing with highest score received a $30 gift card, each member of the team with the second highest score received a $20 gift card, and each member of the teams with the third and fourth highest scores received $10 gift cards. Students were informed of how the gift cards would be distributed both when their consent was initially obtained and immediately prior to beginning their first group task. Additionally, the students were told how their scores would be tabulated and that their scores were being compared among all participants in all classes including their own.

Procedure

One week prior to the beginning of the study each participant completed consent and demographic information forms. Using the demographic information, stratified random assignment was used such that the most senior students, determined by age or grade level, were randomly assigned leader roles. Students were only placed in teams with members of their own class. Due to class sizes, teams were made up of either three or four students including the team leader. This method resulted in 148 total students in 47 different teams. These different teams were then randomly assigned to either the control group or intervention group using a randomized number program.

The study used three phases. In Phase I, all teams completed the Lost at Sea: A Consensus-Seeking Task. Task instructions generally suggest 15-20 minutes for completing the tasks used for this study; however, because it has been suggested that time stress is a catalyst of conflict in medical settings (Marco & Smith, 2002); the teams were given only 12 minutes to try and increase the opportunity for time-related stress. When all groups finished their group tasks, each individual member separately completed the Intragroup Conflict Scale (Pearson, Ensley, & Amason, 2002), which measured team conflict, and a satisfaction scale (Priem, Harrison, & Muir, 1995) that measured participant satisfaction with the team process. The results of the initial completion of the task as well as the Intragroup Conflict Scale and satisfaction scale were used in a similar way to the studies on training effects conducted by Haraway and Haraway (2005), Brinkert (2010), and Zweibel et al. (2008), who used pre- and post-test survey and interview data to serve as a baseline for comparison.

In Phase II, team leaders from the intervention group were removed from the room and, as a group, given background information and a short training on the steps of the micronegotiation technique. They were instructed to use this technique if and when conflict or disagreement occurred during the completion of the Phase III task. The training lasted fifteen minutes and included an introduction to conflict styles, the steps of the micronegotiation technique, and several minutes to practice reflective listening. The intervention group leaders were told what the rest of the participants were doing while they were in the micronegotiation training.

While the leaders of the intervention groups were being trained on the micronegotiation techniques, all other participants, including non-intervention group leaders, either watched a short video clip as an entire group or were regrouped and completed a short brainteaser exercise in their new, temporary groups. The brainteaser was a visual brainteaser in which a common phrase was presented in the form of pictures and the teams attempted to figure out the common phrase. The video was a clip from the movie *Castaway* in which the main character fights the breakers while attempting to paddle his makeshift raft out to open water. This was chosen as it loosely related to the Lost at Sea task they had just completed. Use of either the video or brainteaser exercise was based on whether or not the classroom had video capabilities. These participants were not informed about what the intervention group leaders were doing while they were watching the video or completing the brainteaser.

In Phase III, the teams completed the NASA Survival Task. The teams remained intact from Phase I as Korsgaard, Schweiger, and Sapienza (1995) suggested that intact teams show higher emotional investment in group processes. As in Phase I, teams were given 12 minutes to complete the task and once finished, they again separately completed the Intragroup Conflict Scale and the satisfaction scale. Finally, the participants completed the Group Task Procedures Questionnaire to determine if the micronegotiation technique was used by the team leads trained on the technique.

Measures

Both the Lost at Sea: A Consensus-Seeking Task (Nemiroff & Pasemore, 1975) and the NASA Moon Survival Task ask participants to imagine a scenario where they are stranded in a particular environment and to then rank order a specific list of 15 available resources that have been salvaged from their boat or spaceship based on the item's importance to their survival. Both tasks have been previously used in team and group process related research (Innami, 1994; Kimura & Kottke, 2009; Littlepage, Robison, & Reddington, 1997; Miner, 1984; Reinig, 2003; Roch & Ayman, 2005), and the items in each have a correct ranking such that accuracy can be measured. The presence of correct answers was important as it provided an objective measure of team performance, which was one of the dependent variables. Additionally, the inauthentic nature of the tasks was beneficial in reducing subject matter expertise as a possible confounding or extraneous variable.

The Intragroup Conflict Scale (Jehn, 1994) is intended to measure the amount of task conflict and relationship conflict within groups. The scale consists of nine questions, such as "how much anger was there among members of the group?" and "how many disagreements over different ideas were there?" (Pearson, Ensley, & Amason, 2002, p. 113). Participants choose a response from the five point Likert-type scale with options ranging from "None or Hardly" to "A Great Deal." The scale was completed individually and then the scores of all team members were averaged for a group score. For this study, the Cronbach's alphas for the instrument measuring relationship conflict and task conflict were .873 and .833 respectively. The scale was chosen due to its widespread acceptance for measuring task conflict and relationship conflict.

Satisfaction was measured using a two item scale (Priem, Harrison, & Muir, 1995) that included two questions; "working with this group has been an enjoyable experience" and "I would like to work with this group in the future." Participants chose their response from a five-point Likert scale anchored from "strongly agree" to "strongly disagree." This method was previously used by DeChurch and Marks (2001) as part of their study on the effects of task conflict and for this study recorded a Cronbach's alpha of .959. The reliability and previous use of this satisfaction scale in studies on task conflict and relationship conflict, coupled with the fact it only required two questions to assist in protecting against test fatigue, met the primary measurement criteria for this study.

FINDINGS

Four questions guided this study and focused on the differences in team performance, levels of task conflict and relationship conflict, and team member satisfaction between teams whose leaders were trained on how to use the micronegotiation technique and teams whose leaders were not trained.

Findings from the data analysis using MANOVA indicate that training on the micronegotiation technique did not lead to a statistically significant difference for any of the dependent variables of the study. There was no statistically significant difference in changes in the levels of task conflict ($F(1,46) = .377$; $p = .542$), relationship conflict ($F(1,46) = .809$; $p = .373$), team performance ($F(1,46) = .088$; $p = .768$), or team member satisfaction ($F(1,46) = .036$; $p = .851$) between those groups with leaders trained in the micronegotiation technique and those not trained in the technique. The results are provided in Table 1.

Table 1
Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Control or Experimental Group	Task Performance	6.67	1	6.67	.088	***.768***
	Relationship Conflict	.051	1	.051	.809	***.373***
	Task Conflict	.070	1	.070	.377	***.542***
	Satisfaction	.010	1	.010	.036	***.851***

The findings from the data analysis would seem to indicate that being trained on the need for and use of the micronegotiation technique did not appear to have any effect on the teams' levels of task conflict, relationship conflict, team performance, or team member satisfaction. Any difference that occurred would be a result of chance rather than the intervention. However, there are several factors that must be considered before drawing the conclusion that the micronegotiation technique is not effective. Perhaps the most important of these factors is the low levels of both task and relationship conflict reported in Phase I of the study. Task conflict, relationship conflict, and satisfaction were all measured on a five point scale. All dependent variables are provided in Table 2 and a chart providing a visual representation of the infinitesimal differences is provided in Figure 1.

Table 2
Descriptive Statistics for Dependent Variables in Phase I and Phase III for Control and Intervention Groups

	Control (n = 23)	Intervention (n = 24)
	Mean	Mean
Phase I		
Team Performance	65.13	61.00
Relationship Conflict	1.17	1.17
Task Conflict	2.02	2.06
Team Satisfaction	4.43	4.35
Phase III		
Team Performance	39.91	40.67
Relationship Conflict	1.22	1.15
Task Conflict	2.04	1.96
Team Satisfaction	4.37	4.37

Initial levels of task conflict and relationship conflict reported in the control group were 2.02 and 1.17 respectively, and the intervention group reported levels of 2.06 for task conflict and 1.17 for relationship conflict. Both are relatively low suggesting that there may not have been much room for improvement in using the micronegotiation technique. In Phase III the levels remained low with the control group showing increases in task conflict (2.04) and relationship conflict (1.22). The intervention group reported decreased levels of both types of conflict such that task conflict scores dropped to 1.96 and relationship conflict dropped to 1.15.

The intervention group showed decreases in levels of both task conflict and relationship conflict from Phase I to Phase III and the control group showed increases in those variables. Additionally, the intervention group experienced an increase in satisfaction with the team while the control group decreased in their level of satisfaction. Yet despite the fact that this may indicate that the micronegotiation technique was beneficial to the group process, these differences were not statistically significant meaning they cannot, with confidence, be attributed to the micronegotiation technique.

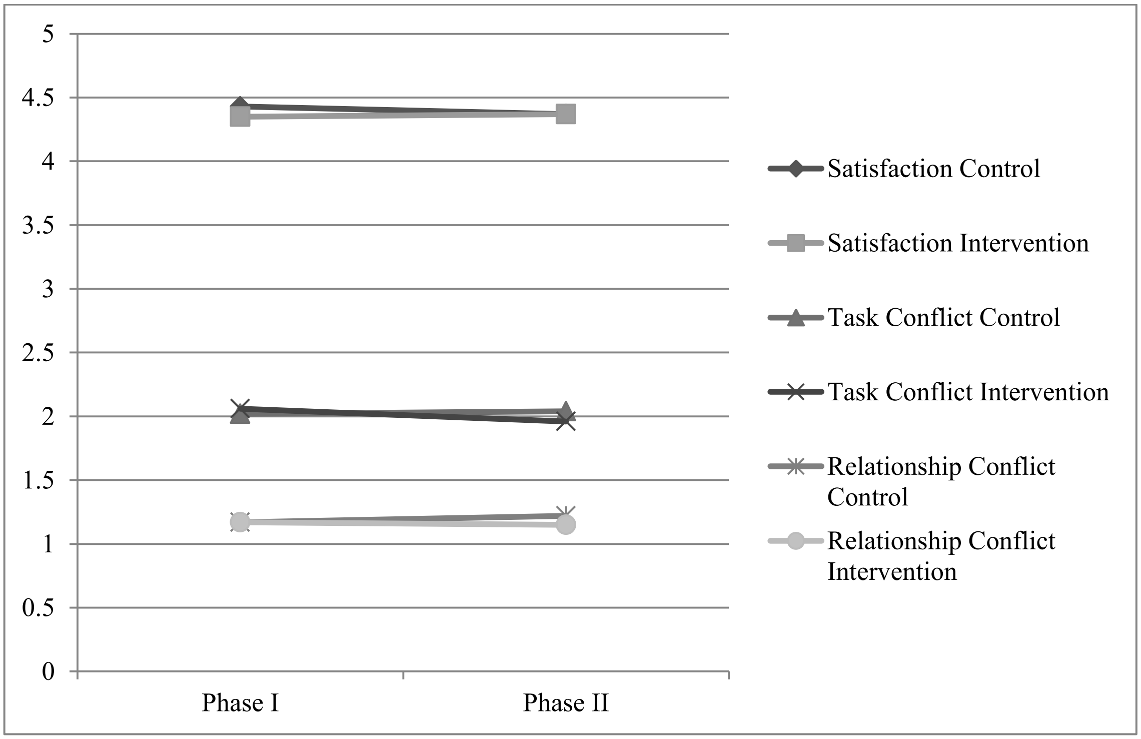

Figure 1 Changes in dependent variables from Phase I to Phase III

DISCUSSION

The findings from the study show no significant effect of training the leaders of health profession student teams in micronegotiaton on the key variables of task conflict, relationship conflict, team performance, and team member satisfaction. However, several factors suggest that further research is necessary before drawing conclusions on the utility of such a technique.

One area of concern with the findings of this study and with the student team population was the generally low levels of either task conflict or relationship conflict. The tasks were not authentic, which was intentional to reduce the potential impact of specialized knowledge, and it appears that the stakes for poor performance not high enough to evoke emotional investment. On a scale of one to five with five being a high level of conflict, the initial average conflict scores were 2.04 and 1.17 for task conflict and relationship conflict respectively across all groups. The average score for task conflict dropped to 2.0 and rose to 1.18 for relationship conflict in the post-test. With such low levels of conflict to begin with, there appeared to be very little room for improvement from any intervention, which speaks more to the design of the study than the utility of the technique. In this case, the students may have simply enjoyed the fact that they were getting to participate in an activity rather than listen to a lecture.

Levels of conflict may also have been affected by the use of upper classmen as leaders and the time restrictions for the completion of the tasks. It is possible that younger students simply "followed" the older, more senior students whom they may have respected, rather than engage in such a way that might be perceived as conflict. Additionally, the teams were given 12 minutes to complete their tasks as a way of increasing stress. However, this limited time frame may not have given the teams enough time to actually engage in conflict. Perhaps giving teams more time to engage in discussion would lead to greater emotional investment and increased intragroup conflict.

Future research may take place in settings (educational or professional) where the outcomes have real-world consequences such that participants are truly invested in the process. It may also be worth randomly assigning team leaders rather than using a stratified assignment using senior participants to reduce this as a factor potentially hindering group conflict. Finally, it may be wise to use the suggested time allotments for task completion as this may allow participants to engage in the discussion in greater depth and hopefully higher emotional investment. Higher emotional investment may lead to higher variances in the conflict responses for measurement.

Another factor worth considering for human resource development professionals is the micronegotiation training itself. A short, 15-minute training on micronegotiation was used in this study, which is less than studies such as those of Haraway and Haraway (2005), Zweibal et al. (2008), and Saulo and Wagener (2000). It is possible that the lack of significant findings between those trained and those not trained on micronegotiations is a product of poor training rather than a deficiency in the technique itself. The amount of training on dispute handling to which one has been exposed has been shown to correlate positively with negotiation ability (Rai, 2013), suggesting that the amount provided in this instance may have been insufficient. Additionally, the micronegotiation training was not pilot-tested prior to using it in the study, which may be worth addressing in future studies. HRD professionals will certainly recognize that length of a training alone is not the sole determinant of the potential effectiveness of the training, but in this case it is worth considering for future studies on this topic.

Finally, the technique may not actually be a conflict resolution technique. Rogers and Lindgard's (2006) "micronegotiation" technique may more accurately be referred to as a conflict assessment. The steps of the micronegotiation seem to assist the team lead in determining the most appropriate course of action. This is different than seeking to amiably settle a team dispute and reach a solution. Rather, the micronegotiation encourages the leader to determine how to best address the conflict. Given the time constraints of an operating room environment, there are times when a full-blown collaborative approach may not be in the best interest of the patient thus, a forcing or competitive style may be the best path. If Skjørshammer (2001) is correct in his finding that the default response to conflict among some medical personnel is avoidance or forcing, then the real value of this technique may be simply getting those professionals to first recognize the presence of a conflict and then to consider perspectives other than their own. Additionally, the micronegotiation could include a step whereby the team lead briefly explains the rationale for the chosen course of action either at the moment of the decision or in a post-task debriefing.

IMPLICATIONS

Despite the findings of the present study, in a medical setting, the utility of the micronegotiation technique may be the fact that it expects the surgeon (or team lead) to consider the appropriate conflict style rather than potentially defaulting to avoidance or forcing styles. There is also value in that it leads them to recognize the conflict that arises. In directing the medical team lead to, “take a few seconds to allow for the control of emotions in a tense clinical situation,” means that the team lead acknowledges that a conflict exists, which moves them away from avoiding (Rogers & Lingard, 2006, p. 572). Likewise, while directing them to, “listen to the ideas or concerns of the other party and paraphrase or summarize them to indicate they were heard,” may not equate to collaboration or dissuade the use of a forcing style, it does at least suggest a more collegial interaction (Rogers & Lingard, 2006, p. 572). In this way, the micronegotiation technique provides a structure for team leads to investigate how best to manage a conflict outside of a visceral reaction.

The potential for the micronegotiation technique to serve as an assessment tool assisting team leaders to choose the appropriate conflict management style as well as moving them to a more collaborative process is an important consideration for HRD professionals. Trudel and Reio (2011) found that conflict style was related to instigating or being the target of incivility. Participants in their study who identified as predominantly using dominating conflict styles, which are also referred to as forcing or competing depending on the instruments used, were more likely to instigate incivility, while those high in integrative, or also referred to as collaborative in some instruments, were less likely to instigate incivility. Additionally, the dominating styles were more likely to be the target of incivility and integrative styles less likely to be the target of incivility. This suggests an opportunity for HRD professionals who can offer professional development on techniques, possibly such as micronegotiations, that may be able to direct team members to use more collaborative methods when encountering conflict.

While this study focused on medical settings and focused on students pursuing careers in health related professions, the need for conflict education within organizations touches all fields. In general, conflict interferes with team collaboration (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008) and poses a significant problem for managers. AccountTemps (2011) suggested that up to 18% of a manager’s time is spent resolving conflict and a CPP Inc. (2008) survey found that the average employee spends approximately 2.1 hours per week handling conflict. Additionally, 25% of the respondents in the CPP Inc. survey indicated they had missed work to avoid conflict, and the study estimated that the lost productivity that results from conflict costs organizations around $359 billion annually.

Given the ethical and economic costs related to conflict in medical and general organizational settings, ongoing research on techniques aimed at not only preparing, but directing, personnel on managing disputes seems to be of value. The micronegotiation technique is just one process that seems to justify continued investigation for positively affecting team and organizational collaboration and outcomes.

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SURVEYING ORGANIZATIONAL EFFECTIVENESS: A CASE STUDY FROM THE UNITED ARAB EMIRATES

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ABSTRACT

This study examined the underlying factors guiding participant responses on a 39-item organizational effectiveness questionnaire administered in an institution of higher education in the United Arab Emirates. The purpose of the study was to identify the primary dimensions shaping employee perceptions of the institution's organizational effectiveness. The study was conducted and the dimensions were identified in support of the organization's continuous quality improvement process with the intent to implement strategies for the improvement of the institution and guide individual component improvement plans. The study employed quantitative dimension reduction commonly known as factor analysis after compilation of response descriptives. The analysis identified 6 underlying factors guiding employee responses to the survey of organizational effectiveness. Efforts to enhance perceptions of an organization's effectiveness were encouraged to look beyond the view that responses simply constitute a holistic opinion and recognize the many other issues shaping employee perceptions.

Key Words: organizational effectiveness, United Arab Emirates, leadership evaluation, underlying factors, impression management

INTRODUCTION

The change and improvement process within an organization is influenced by multiple factors. Organizational change has traditionally been considered to be part of a specific change imitative or a continuous quality improvement process (Hay, Busby & Kaufman, 2014; Gage, 2013). Change processes are time and effort intensive, as well as costly. Most organizations eventually run into the question of which costs can provide the biggest return on investments. Sadly, organizational effectiveness has traditionally not been associated with a maximum return on effort and investment. The failure of organizations to view their effectiveness within the holistic context of the overall organizational framework is all too often an acknowledgement of the failure of the organization to directly address the realities of capitalism.

The university utilized in the study is a public institution of higher learning offering baccalaureate and graduate degrees in the fields of engineering, business and social sciences. The university is located in the northern portion of the United Arab Emirates (UAE). Education in the UAE has undergone significant transition since the establishment of the nation over 43 years ago. These changes have been greatly influenced by many factors associated with the impact of colonialism and the desire to develop the tools to independently shape the national identity (Alhebsi, A., Pettaway, L., Waller, L., 2015).

REVIEW OF THE LITERATURE

For the purpose of this paper, systems thinking was considered in the tradition of organizational effectiveness established by Argyis, Schon, and Senge (Argyis, 1999; Bertalanffy, 1950; Jackson, 1995; Rosenblueth et al., 1943). Senge (1990) defines systems thinking as “a discipline for seeing wholes. Systems thinking is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static ‘snapshots.’ It is a set of general principles” (p. 68). Due to the dynamic nature of systems theory, ontological implications can be derived based on certain theoretical applications of systems theory in the real world (Jackson, 1995). However, theoretical systems models can also be used as epistemological devices to explain and explore current real world perspectives (Jackson, 1995).

Due to the nature of quantitative research, the epistemological position of this study is rooted in rationalism. Rationalism implies that knowledge is a result of the human mind’s desire to know the truth. This perspective supports the belief that human reasoning alone can ascertain the truth. However, the nature of some of the quantitative tools involved in this study (such as the survey of organizational effectiveness) might also be viewed as empiricist in nature (Jackson, 1995).

A 39-item organizational effectiveness questionnaire was utilized to identify primary dimensions shaping employee perception of the organization’s levels of institutional effectiveness. Upon completion of this study six dimensions were identified as critical underlying dimensions (factors). Data from this study were collected with the intent of developing and implementing strategies in support of the organization’s continuous improvement processes within critical function areas. Findings are also intended to guide individual components in implementing plans for organizational improvement (Rashidi, 2015). Thus, these efforts culminate in the development of a service improvement methodology, which is directly used to support the organization’s performance management systems. This methodology for improvement is consistent with the literature and has been designed in alignment with the organization’s overall vision, mission, goals and objectives.

Although many informational sources may be employed in these improvement plans, the institution and individual components may effectively utilize information provided by organizational effectiveness questionnaires, such as the one used for this study (Rashidi, 2015). Performance management systems, address change, by first identifying and evaluating critical performance areas. For the purpose of this study critical performance areas included areas that were deemed to have significant impact on organizational effectiveness such as upper administration along with internal and external customer interface areas such as human resources, information technology, and logistics.

Upper administration is traditionally one of the first constituencies addressed within the organizational effectiveness and improvement process. Upper management is asked to acknowledge and buy into the effectiveness process and required to articulate and model desired change. Performance management systems likewise recognize the importance of training and mentorship for senior leadership and all areas of management (Lumadue & Waller, 2013a). Moderate to extensive training can be required depending on multiple factors such as experience, length of time with the institution, professional background, social political environment of the organization, economic environment, and a host of similar factors.

Data provided through organizational effectiveness surveys allow for the further tailoring and modification of performance management systems. For performance management systems to be successful specific goals and objectives must be identified. The evaluation of effectiveness must be supportive of the goals and objectives of the organization. Findings demonstrating significant changes in the economic, political and social environments may guide modification of existing organizational strategies. The level of buy-in throughout the organization is also central to the success of a performance management plan. Buy-in can be viewed as the willingness of the members of the organization to accept the proposed change(s). This acceptance can be viewed as a matter that is specific to the proposed change or can be seen as a symptom overarching the organization’s culture and effectiveness (Rashidi, 2015).

Methods utilized to support the change management process within organizations are numerous; however, most managerial change processes include the follow key features. Leadership must identify the key stakeholders. Depending on the culture of thee organization, key stakeholders may not include upper management (Rashidi, 2015). Traditionally upper management is invested in the change process undertaken by an organization. However, depending on the goals, nature and design of the organization the key stakeholders may be derived from any number of constituents. For this reason leaders must identify key stakeholders and remain cognizant of their role in the change process.

The scope of the recommended organizational change needs to be clearly defined and measured. Accurate evaluation of the organization’s current standing is of paramount importance for the establishment of realistic future goals. The distance of change to be transversed by the organization and/or the individuals working within the organization must be measurable and fixed. This is not to say that these factors can and will not change. Instead, careful consideration must be given to the change process and the manner in which the change process is modified in relationship to the organization’s current circumstances. Hence, the process or the level of change necessary to reach the desired outcomes must be recognized not as a point, but as part of greater ongoing and complex change process. This awareness of *tertium quid* (an unidentified third element understood in light of two known elements*)* more accurately reflects the direct and indirect nature of the change process within the organization (Rashidi, 2015).

Similarly, the plan and design for the recommended organizational change needs to be comprehensive and realistic. The plan also needs to be piloted to evaluate the effectiveness of the recommended change plan on a small scale before rolling the plan out to the larger organization. Once the recommended changes have been implemented, the outcomes need to be shared and disseminated throughout the organization (Gage, 2013).

In the final stages of implementing the new change process the driving factors behind perception of the organization’s effectiveness must be considered as well as strategies and methodologies for implementing the change. Changing economic factors have resulted in the need for change management professionals to consider performance management systems with respect to the overall organization’s fiscal bottom line. New management techniques such as burst learning have been designed to address these more comprehensive and efficient management styles.

Burst learning is concerned with the simultaneous development of organizational capacity and profitability (Hay, Busby & Kaufman, 2014). Burst learning utilizes action-learning techniques that save time and provide organizations the opportunity to implement corrective actions on the spot. One of the other characteristics of burst learning relates to multiple learning formats utilized to guide the learning and support stages as outline by Kirkpatrick's four levels of evolution model (Cheng & Hampson, 2008; Hay, Busby & Kaufman, 2014). These processes are examples of support methods and models often utilized to guide the development, planning, and implementation of organizational improvement and effectiveness strategies.

PURPOSE

The purpose of the study was to identify the primary dimensions shaping employee perceptions of the institution's organizational effectiveness. The study was conducted and the dimensions were identified in support of the organization's continuous quality improvement process with the intent to implement strategies for the improvement of the institution and guide individual component improvement plans. Additionally, the findings hold the potential to guide future practice and research to enhance understanding in the broad field of organizational culture and effectiveness.

RESEARCH METHODOLOGY

The study employed quantitative methodology to conduct a dimension reduction on a data set collected via the digital administration of a 39-item organizational effectiveness questionnaire for the purpose of determine the underlying factors driving participant responses.

RESEARCH QUESTIONS

Two research questions were utilized to drive the study. These two questions related to the extent of the participant responses and examined potential relationships between or among the various responses. As outlined by Creswell (2009) the research questions obtain the responses of the participants then guide the statistical methodology. The research questions follow.

Research Question 1: What are the participant responses to the 39-item 2015 Survey of Organizational Effectiveness for an institution of higher education in the northern portion of the United Arab Emirates?

Research Question 2: Do relationships exist between or among the participant responses to the 39-item 2015 Survey of Organizational Effectiveness for an institution of higher education in the northern portion of the United Arab Emirates?

RESEARCH HYPOTHESES

Research Question 1 did not require research hypotheses, as the required findings were only descriptive in nature. Research Question 2 required null and alternate research hypotheses to examine potential relationships of the various responses. The research hypotheses supporting Research Question 2 follow.

Ho: No relationships exist between or among the participant responses to the 39-item 2015 Survey of Organizational Effectiveness for an institution of higher education in the northern portion of the United Arab Emirates.

Ha: Relationships exist between or among the participant responses to the 39-item 2015 Survey of Organizational Effectiveness for an institution of higher education in the northern portion of the United Arab Emirates.

LIMITATIONS, DELIMITATIONS, AND ASSUMPTIONS

Limitations, delimitations and assumptions of the study follow. This study was limited by the following factors.

1. Data from the Survey of Organizational Effectiveness were only available for the spring 2015 semester.
2. Data from the Survey of Organizational Effectiveness were available only for the institution under examination.

The researcher delimited the study as follows.

1. The study was restricted to data retrieved utilizing the survey instrument.
2. The collection of information was delimited to the spring 2015 semester for the institution under examination.

The following assumptions were made for this study.

1. The data were accurate and correctly recorded.
2. The data were usable and appropriate for this study.
3. Examination of the data held the potential to guide future practice and research.

RESULTS

Research Approach

The research utilized a 4-point Likert survey evaluation of organizational effectiveness. The survey was developed approximately 20 years prior to this implementation by a team of experts from the field. The reliability of the survey instrument has been assessed numerous times with all scores ranging from 0.89 and up. The survey instrument was slightly modified to accommodate the needs of the institution. A Chronbach alpha was utilized to evaluate the reliability of the data set due to the modification of the instrument. The score of 0.981 was deemed appropriate to satisfy the reliability requirements (Waller, L., & Lumadue, R., 2013b).

Descriptives of participant responses were collected in answer to Research Question 1. The descriptives included the number of participant responses along with the mean and standard deviation of the response items. Prior to the employment of analysis relating to Research Question 2, sample adequacy was established using the Kaiser-Meyer-Olkin measure of sample adequacy that returned an acceptable score of 0.518. The requirements established by Waller and Lumadue (2013b) for conducting dimension reduction were then examined. No outliers were identified in the data. The presence of 39 variables was deemed sufficient to satisfy expectations required for dimension reduction (factor analysis). Following the determination that basic requirements had been satisfied, Research Question 2 was addressed through the examination of Bartlett's test of sphericity. The test was also utilized to establish the linear nature of the data. Dimension reduction was then employed to identify underlying factors guiding participant responses. Factors with Eigenvalues ≥ 1.0 were deemed significant. Factor loadings were then examined.

Research Question 1

Descriptives were collected in answer to Research Question 1. These descriptives are provided in Table 1 and include the number of participant responses along with the mean and standard deviation of the respondents.

Table 1
ANALYSIS OF PARTICIPANT RESPONSES
Number, Mean and Standard Deviation

Question	N	μ	σ
1. The mission and vision of the organization are widely understood.	44	2.48	1.229
2. The mission and vision are widely communicated.	44	2.52	1.067
3. The organizational structure enables accomplishment of the mission.	44	2.55	1.229
4. Publications are well designed and represent the organization well.	44	2.57	1.301
5. The website meets the needs of the organization.	44	2.43	1.228
6. The public recognizes the organization for academic excellence.	44	2.34	1.238
7. The organizational structure facilitates consensus building.	44	2.30	1.374
8. Employees are informed about policies and procedures.	44	2.52	1.285
9. Employees are kept aware of special events and programs.	44	2.73	1.169
10. Employees are actively involved in decision-making processes.	44	1.98	1.338
11. Employees are encouraged to participate in leadership processes.	44	2.27	1.484
12. Supervisors evidence the skill sets required to facilitate participation.	44	2.18	1.352
13. Students are provided adequate opportunity to participate.	44	2.36	1.296
14. The institutional effectiveness process fosters a culture of improvement.	44	2.59	1.127
15. The institutional effectiveness process is systematic and broad based.	44	2.64	1.102
16. The institutional effectiveness office provides appropriate training.	44	2.34	1.380
17. The organization facilitates the employment of qualified personnel.	44	2.64	1.203
18. The workplace is conducive to the retention of qualified personnel.	44	2.20	1.488
19. HR policies are clearly communicated within the organization.	44	2.45	1.066
20. Appraisal procedures are fairly and systematically administered.	44	2.25	1.241
21. Employees are provided appropriate recognition for accomplishments.	44	2.14	1.456
22. Employees participate in the budgetary process.	44	2.14	1.407
23. The budgetary process is linked to institutional effectiveness.	44	1.95	1.293
24. Budgetary processes are adequate to support position requirements.	44	1.80	1.472
25. Budgetary processes are clearly communicated.	44	2.05	1.430
26. Technology is sufficient to support activities of the organization.	44	2.52	1.285
27. IT provides adequate training to support the organization's activities.	44	2.59	1.168
28. The IT helpdesk provides speedy resolution to difficulties encountered.	44	2.89	0.970
29. The organization's restaurant provides a quality dining experience.	44	2.50	1.110
30. The restaurant personnel are helpful and polite.	44	2.93	0.974

31. The restaurant facilities are clean and well maintained.	44	2.80	1.112
32. Purchasing processes are clearly communicated.	44	2.16	1.346
33. The logistics department fulfills request in a timely manner.	44	2.36	1.278
34. Employees are kept informed about pending purchase requests.	44	2.23	1.236
35. The organization's campus is a safe and secure.	44	2.82	1.244
36. The organization's facilities are clean and well maintained.	44	2.39	1.385
37. The classroom facilities are appropriate to facilitate learning.	44	2.11	1.262
38. Parking is appropriate to support the organization's need.	44	2.20	1.456
39. The organization is a quality institution.	44	2.57	1.189

Summary scores for the responses ranged from a high of 2.93 relating to the courtesy of the restaurant personnel to a low of 1.80 relating to adequacy of budgetary support for position assignments. The three highest scores were in the areas of the helpfulness of the IT desk, cleanliness of restaurant facilities, and the safety of the campus facilities. The three lowest scores were in the areas of linking the budgetary process to institutional effectiveness efforts, employee involvement in the decision-making process, and the adequacy of the facilities to support learning. Overall, the scores provided on the survey instrument exceeded expectations based on analysis of prior administrations of the instrument at other institutions.

Research Question 2

The null hypothesis associated with Research Question 2 was evaluated through utilization of the Bartlett's test of sphericity. Significance was identified at < 0.001 leading to the decision to reject the null hypothesis in favor of the alternate hypothesis. Relationships were found to exist between or among the various response scores. Bartlett's test of sphericity also established the linear nature of the associated variables. Dimension reduction methodologies were then applied to the data set. Findings are provided in Table 2.

Table 2
DIMENSION REDUCTION
Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	23.132	59.312	59.312	23.132	59.312	59.312
2	2.691	6.900	66.212	2.691	6.900	66.212
3	2.135	5.474	71.685	2.135	5.474	71.685
4	1.648	4.226	75.912	1.648	4.226	75.912
5	1.246	3.195	79.107	1.246	3.195	79.107
6	1.055	2.704	81.811	1.055	2.704	81.811

Extraction Method: Principal Component Analysis

The 6 factors (dimensions) explained at total of 81.811% of the variance within the data set. The associated factor loadings for the 6 identified factors are included in Table 3. Factor loadings with an absolute value ≥ 0.300 were deemed significant (Waller & Lumadue, 2013b). The first factor included all of the questions of the survey questionnaire. This factor was labeled as a holistic impression of the overall organizational effectiveness of the institution. The second factor included questions 28, 29, 30, 31 and 33 and was labeled as convenience services. This factor explained an additional 6.9% of the variance. The third factor included questions 5, 6, 11, 33 and 37 and focused on employee involvement. The fourth factor included questions 22, 23, 35 and 36. This factor was labeled the perception of the security and appearance of the campus. The fifth factor included questions 19 and 28. This factor was identified as opinion regarding the helpfulness of employee support services. The sixth and last factor included questions 5, 6, 14 and 15 and was associated with the organization's focus on continuous improvement.

The 6 identified factors underlying participant responses on the Survey of Organizational Effectiveness were (1) a holistic impression of the organizational effectiveness of the institution, (2) opinion of employee convenience services, (3) views concerning employee involvement, (4) perception of the security and appearance of the campus, (5) opinion regarding the helpfulness of employee support services, and (6) the organization's focus on continuous improvement. Together these dimensions accounted for 81.8% of the variance within the data set.

Table 3
DIMENSION REDUCTION FACTOR LOADINGS
Component Analysis

Question	1	2	3	4	5	6
1. The mission and vision of the organization are widely understood.	.874	-.144	-.123	.191	.049	.040
2. The mission and vision are widely communicated.	.773	-.330	-.190	.232	-.138	-.017
3. The organizational structure enables accomplishment of the mission.	.778	-.174	-.191	.251	.184	-.002
4. Publications are well designed and represent the organization well.	.810	-.213	-.302	.208	.100	.067
5. The website meets the needs of the organization.	.701	-.068	-.405	.065	-.105	.424
6. The public recognizes the organization for academic excellence.	.829	-.036	-.313	.146	.015	.424
7. The organizational structure facilitates consensus building.	.892	-.143	.071	-.026	.030	-.107
8. Employees are informed about policies and procedures.	.775	-.337	.014	-.215	-.059	-.232
9. Employees are kept aware of special events and programs.	.725	-.216	.239	-.194	-.207	-.180
10. Employees are actively involved in decision-making processes.	.807	-.089	.298	-.072	-.171	.036
11. Employees are encouraged to participate in leadership processes.	.810	.049	.346	-.086	-.059	-.031
12. Supervisors evidence the skill sets required to facilitate participation.	.897	-.097	.156	-.067	-.177	.023
13. Students are provided adequate opportunity to participate.	.835	.059	.029	.122	-.200	.084
14. The institutional effectiveness process fosters a culture of improvement.	.838	.049	-.184	.022	.007	-.328
15. The institutional effectiveness process is systematic and broad based.	.732	.188	-.236	-.063	-.047	-.341
16. The institutional effectiveness office provides appropriate training.	.830	-.037	-.040	.180	-.170	-.090
17. The organization facilitates the employment of qualified personnel.	.775	.151	.109	-.130	.278	-.305
18. The workplace is conducive to the retention of qualified personnel.	.890	.130	-.116	.044	.048	.184
19. HR policies are clearly communicated within the organization.	.795	-.151	.014	-.021	.443	.027
20. Appraisal procedures are fairly and systematically administered.	.813	-.122	.179	.103	.259	-.148
21. Employees are provided appropriate recognition for accomplishments.	.832	-.018	.265	-.071	.172	.013
22. Employees participate in the budgetary process.	.813	-.250	.094	-.320	-.177	.042
23. The budgetary process is linked to institutional effectiveness.	.842	-.146	-.017	-.345	-.057	-.041
24. Budgetary processes are adequate to support position requirements.	.719	-.096	.284	-.234	-.119	.183
25. Budgetary processes are clearly communicated.	.767	-.342	.211	-.224	-.058	.276
26. Technology is sufficient to support activities of the organization.	.769	-.193	-.250	-.256	.190	.121
27. IT provides adequate training to support the organization's activities.	.726	.206	-.221	-.325	.179	.224
28. The IT helpdesk provides speedy resolution to difficulties encountered.	.573	.312	-.027	-.290	.494	-.055
29. The organization's restaurant provides a quality dining experience.	.660	.570	.126	-.048	-.191	.078
30. The restaurant personnel are helpful and polite.	.424	.746	.254	.035	-.041	.171
31. The restaurant facilities are clean and well maintained.	.506	.786	.226	.010	.022	.003
32. Purchasing processes are clearly communicated.	.851	.195	-.236	-.103	-,022	.200
33. The logistics department fulfills request in a timely manner.	.655	.379	-.501	-.086	-.049	-.046
34. Employees are kept informed about pending purchase requests.	.664	.275	-.228	.095	-.310	-.246
35. The organization's campus is a safe and secure.	.653	.010	.119	.541	.213	-.039
36. The organization's facilities are clean and well maintained.	.704	-.038	.33	.425	.073	.140
37. The classroom facilities are appropriate to facilitate learning.	.734	-.052	.437	.294	.039	.055
38. Parking is appropriate to support the organization's need.	.762	.115	-.220	.258	-.201	-.054
39. The organization is a quality institution.	.921	-.009	.045	-.014	-.141	-.146

IMPLICATIONS

The 6 underlying factors driving participant responses on the Survey of Organizational Effectiveness provide insight into numerous ramifications relating to employee perception of the organization’s effectiveness. The first factor was a holistic impression that accounted for just under 60% of the variance in the data set. Though this amount may appear large at first consideration, just over 40% of the variance still remained to be explained. This leads to the conclusion that employee perception of the organization’s effectiveness is contingent upon many more issues than simply a holistic overview. Other factors come into play.

The remaining 5 factors related to convenience services, employee involvement, the security and appearance of the facilities, the helpfulness of employee support services and the organization’s focus on continuous improvement. The employee’s commitment to the workplace appears to be enhanced by the availability of convenience services. Though the survey instrument focused on food services, convenience services such as break rooms, ATM machines, and a commissary likely serve to enhance the employee’s impression of the organization’s reciprocal commitment to the employee. This, in turn, possibly strengthens the employee’s commitment to the organization and engenders positive perceptions of the organization.

CONCLUSIONS

Employee involvement has long been viewed as an essential element for employee buy-in to the vision and mission of the organization (Arogundade & Arogundade, 2015). As previously discussed, Gale (2013) emphasized the importance of shared decision making as a methodology to empower and ensure that implemented changes are sustained for the long-term. The presence of the third factor indicates that the perception of organizational effectiveness is impacted by the meaningful involvement of employees in the decision making process. Those who are involved in decisions are more likely to support those decisions. Employees who have bought into the organization’s decisions are much more likely to perceive themselves as an important component of the organization’s effectiveness.

The fourth factor illustrates the importance of the safety and appearance of the facilities and the role that these play in employee’s perceptions. Implications of this finding reach beyond simple issues of safety and appearance to emphasize the importance of all personnel. Groundskeepers, building maintenance, security and all line staff must be viewed as an integral and essential component for maintaining the image of the organization. Simply put, organizational effectiveness is a team effort involving everyone from the CEO to entry-level employees engaged on any tasks relating to the operation of the organization. Every employee is important. Additionally, safety and the appearance of the facilities are central to employee perceptions of an organization’s effectiveness.

Just as convenience services shaped perceptions, employee support services are also very important. The findings reveal that employees are likely to view the organization in light of the manner in which the organization supports and guides their development. Hence, the promotion of a positive vision of organization effectiveness requires that the organization empower and support the needs and development of employees. Similarly, functions such as human resources, information technology, professional development and administrative support shape employee perception. An organization that invests in the development of its employees is likely to strengthen employee perception of its effectiveness. One could argue that perception and reality are synonymous.

The last identified factor related to the organization's commitment to continuous improvement. Many refer to an organization focused on continuous improvement as a learning organization. A learning organization embraces and practices quality enhancement. When employees perceive a positive organizational commitment to quality enhancement, this perception is transferred to a positive perception of the effectiveness of the organization.

In conclusion, a positive impression of the effectiveness of an organization requires (1) employee involvement and buy-in, (2) a reciprocal relationship between employees and the organization, (3) a secure and professional work environment, and (4) a strong organizational commitment to continuous improvement. The study clearly indicates that employee perception of a reciprocal relationship between themselves and the organization empowers their impression of the effectiveness of the organization.

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A QUESTION OF CULTURE: THE IMPACT OF COLLEGE MAJOR AND PERSONALITY ON PURSUITS OF DIFFERENT TYPES OF COMPANY CULTURE

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ABSTRACT

What to do with one's future and career is a question with which every college-aged student struggles. It is not simply a matter of finding a "job" that pays the bills, but rather a "career" that they will be happy with for the length of their professional life. Furthermore, this happiness in their careers consists of many attributes from appropriate pay to satisfaction with their job tasks to the culture of the company for which they choose to work. This last attribute is possibly the hardest for young adults to define and measure. The purpose of this study is to understand college-age job applicant's views on what type of company culture they would like to work in upon graduation. This research examines how the student's majors and personalities affect their pursuit of a career with a company that has a certain culture.

INTRODUCTION

In the job search process, there are two sides looking for a beneficial outcome: the job seeker and the hiring manager. From the job seeker's perspective, there is a struggle to determine what to do with one's future and career. It is not simply a matter of finding a job that is the means to the ends of economic value, but rather a career in which they will find meaningful work that will drive them to success (Michaelson et al., 2014; Tummers & Knies, 2013). Furthermore, this career happiness can be derived from many attributes including appropriate pay, satisfaction with their job tasks, and their company's culture. This last attribute is possibly the hardest to define and measure. Prior research has indicated that a job seeker evaluates the match between the company culture and his or her personality when deciding which job offer to pursue (Amos & Weathington, 2008; Judge & Cable, 1997; Schneider, 1987).

From a recruiter's perspective, the search is for a job candidate that has the knowledge to complete the required job-related tasks and a manner and personality that will match the corporate culture and fit in with the people with whom the new employee will be working. As a result, recruiters need to evaluate not only the job candidate's factual knowledge but also the candidate's personality and "fit to mission" with the company (Coldwell et al., 2008; Lado & Wilson, 1994; Murphy, 1986).

This research will analyze college-aged job applicant's views of what type of company culture they would like to work for upon graduation and how their majors and personalities may affect this intent to pursue. The sections below examine the prior research in the areas of company culture, the linkage between individual personality and college major, and the influence of person-organization fit on the pursuit of a career with a company.

Company Culture

The phrase "company culture" consists of many attributes and as a result is difficult for job applicants to define and measure for themselves. One of the most popularly accepted definitions of company culture in prior literature comes from Schein (1992), which defined culture as:

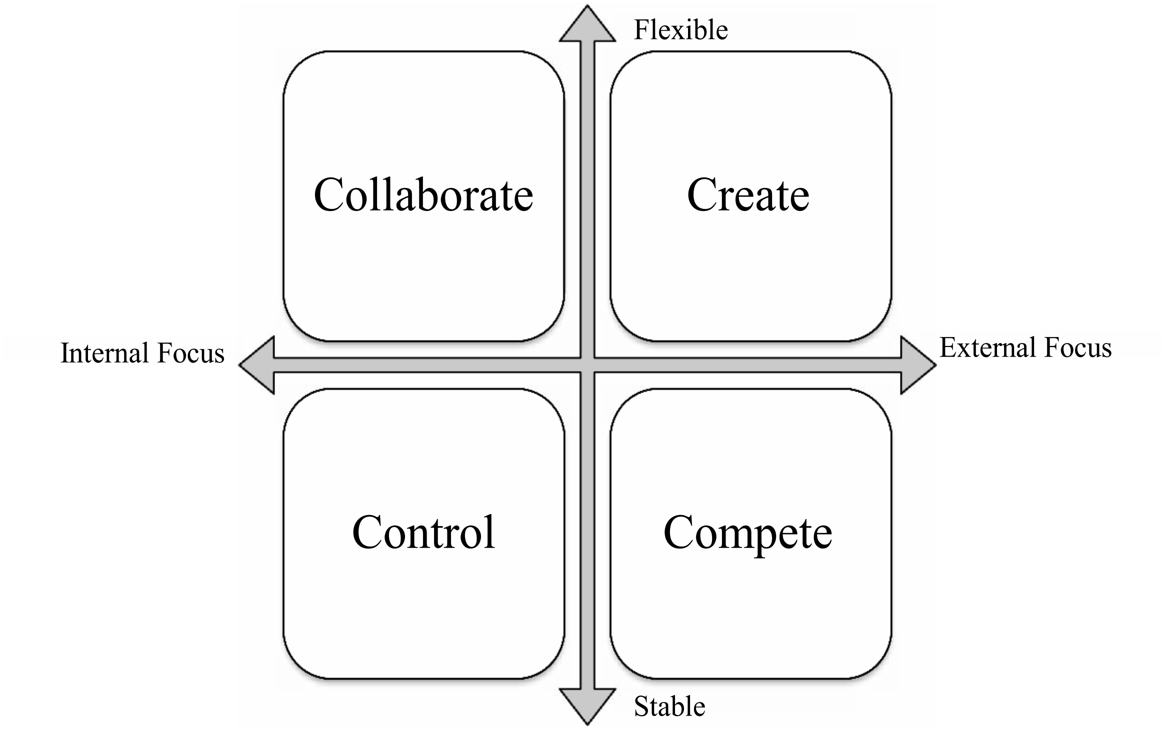
> *A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (p. 17).*

It is important to note that in Schein's definition the emphasis is placed on group understanding and acceptance of the cultural components. The attributes of a company's culture are ones that have been adopted over time by the people of the organization because they are what best fit the company members' values, experiences, and ways of getting tasks done (Post, Lawrence, & Weber 2002). He further described culture as being seen on the surface level of the organization as the business mechanics and written codes of conduct, but also works on a deeper level of organizational "reality" (Schein 1992). What is especially impactful about this definition is that this "culture" is not simply what the company claims that they do, but it is also the reality of working there.

Others have defined company culture similarly to Schein (1992) but provided additional insights. For example, Kilman, Saxton, and Serpa (1985) defined culture as the values, attitudes, and norms that are shared within an organization and characterized them on this deeper level of reality. Not only is the culture the thing that holds a company's members together, but it is what they can leverage to set themselves apart to applicants and customers. Similarly, Harrison and Stokes (1992) defined company culture as the personality of the company and what sets a company apart from the competition.

In an effort to define types of company culture, prior research has employed the Competing Values Framework (Büschgens, Bausch, & Balkin, 2013; Hartnell, Ou, & Kinicki, 2011; Tharp, 2009; Quinn & Rohrbaugh, 1983; Quinn & Spreitzer, 1991; Van Muijen & Koopman, 1994; See Figure 1). The framework utilized three underlying dimensions (focus, structure, and means–ends) to represent competing core values that reflect the values, attitudes, and norms that appeal to people about that organization (Cameron & Quinn, 2005; Hartnell et al., 2011). The first dimension (on the x-axis), focus, compared internal focus and unity to external focus and rivalry, which emphasizes that some company cultures are driven by internal reflection and improvement whereas others are driven by comparison to their competitors and differentiation (Cho et al. 2013; Hartnell et al. 2011; Tharp, 2009). The second dimension (on the y-axis), structure, looked at a company's practices with regards to flexibility and discretion compared to stability and control, which represents that some organizations value adaptation, change, and natural innovation while others value stability, predictability, and standard processes (Cho et al. 2013; Hartnell et al. 2011; Tharp, 2009). The third dimension, means-ends, is the theoretical basis upon which each culture type is associated with specific values and beliefs (means) that get them to their desired results (ends) (Cho et al. 2013; Hartnell et al. 2011; Tharp, 2009). According to Cameron et al. (2006), studies that directly or indirectly used the Competing Value Framework have been administered in over 10,000 organizations globally.

Figure 1
COMPETING VALUES FRAMEWORK



This framework then has four culture types representing each of the four quadrants: control, compete, collaborate, and create (Hartnell et al. 2011; Tharp, 2009). Each quadrant represents a distinct type of company culture, however it is important to note that as companies are evaluated as closer to the axis, there could be some overlap between cultural types. Collaborative cultures tend to have an internal focus and are of the mentality that they should strive to be the best that they can be and the market will indicate whether they have succeeded or failed (Cho et al. 2013; Hartnell et al. 2011; Tharp, 2009). Modeled after the success of many Japanese companies, these organizations operate as families and have a strong focus on group commitment and loyalty (Cho et al. 2013; Tharp, 2009). In other words, organizations who properly value and retain their human resources are more successful (Cameron et al. 2006). They tend to strongly view their employees as their main asset and be deeply focused on employee satisfaction (Goo, 2007). A core belief in collaborative cultures is that the organization’s trust in and commitment to employees facilitates open communication and employee involvement. Consequently, collaborative organizations value attachment, affiliation, membership, and support (Cho et al. 2013; Cameron & Quinn, 2005). Behaviors associated with these values include teamwork, participation, employee involvement, and open communication. Collaborative cultures strive to provide their employees with learning and personal development opportunities in conjunction with completing their work for the company (Tharp, 2009).

Companies with create corporate cultures are focused more externally and strive for success by comparing themselves to their competition; however, their members still value flexibility (Cho et al. 2013). They tend to have an entrepreneurial spirit and they move and adapt quickly to changes in the marketplace (Cho et al. 2013; Hartnell et al. 2011; Tharp, 2009). A fundamental belief in create cultures is that an idealistic and novel vision induces members to be creative and take risks (Cho et al. 2013). Hence, creative organizations value growth, stimulation, variety, autonomy, and attention to detail (Quinn & Kimberly, 1984). Behaviors that emanate from these values include risk taking, creativity, and adaptability (Cho et al. 2013). Consequently, these means are predicted to cultivate innovation and cutting-edge output (Denison & Spreitzer, 1991).

Since both collaborate and create cultures appear on the half of the matrix that values flexibility and discretion, they do have some attributes in common. For example, both collaborate and create company cultures try to include different amenities to create a "value- added environment" (Murari, 2004). Some of these include sports arenas (*i.e.* beach volleyball, roller hockey, etc.), on-site day care and medical facilities, and free food/snacks (Kuntze & Matulich, 2009). The downside to these types of cultures is that they typically involve larger amounts of working hours, lower pay than industry standards, and an unstructured environment (Kuntze & Matulich, 2009).

Control cultures are characterized by well-defined stability and respect for authority and decision making while having an internal focus (Cho et al., 2013; Hartnell et al., 2011; Tharp, 2009). They are vertical management structures with multiple layers of management and operate using standard processes and procedures (Hartnell et al., 2011; Tharp, 2009). A core assumption in this type of culture is that control, stability, and predictability foster efficiency. A predominant belief in the control culture is that employees meet expectations when their roles are clearly defined (Hartnell et al., 2011). As a result, control cultures are hypothesized to value precise communication, routinization, formalization, and consistency (Quinn & Kimberly, 1984). Behaviors that result from these values include conformity and predictability. These means in turn are expected to promote efficiency, timeliness, and smooth functioning (Cho et al., 2013; Denison & Spreitzer, 1991).

Compete cultures are also focused on stability and control; however, they are externally, rather than internally, oriented, working as a part of a larger hierarchy of suppliers, contractors, customers, etc. Their emphasis is on making those transactions as efficient as possible to optimize profit and success (Hartnell et al. 2011; Tharp, 2009). They value competition and positioning and track employees based on performance results (Cho et al. 2013; Tharp, 2009). The primary belief in compete cultures is that clear goals and contingent rewards motivate employees to aggressively perform and meet stakeholders' expectations. Therefore, compete organizations value communication, competence, and achievement (Cho et al. 2013). Behaviors associated with these values include planning, task focus, centralized decision-making, and articulation of clear goals (Cho et al. 2013; Hartnell et al. 2011). An assumption underlying this type of culture is that an achievement focus produces competitiveness and aggressiveness, resulting in productivity and shareholder value in the short and immediate term (Cameron & Quinn, 2005). Similar to the companies with a control culture, compete cultures rely on rules and standard operating procedures to drive their operations (Tharp, 2009). However, their means are hypothesized to result in a company beating its competitors, achieving its goals, improving product quality, and enhancing its market share and profitability (Cameron et al. 2006).

In a job seeker's attempt to find a career path and in the recruiter's attempt to find the right job candidate, it is important to understand the company culture of the organization(s) being applied to and being recruited for. In addition, it is important for the candidate to understand their own personality.

Personality and College Major

This research attempts to understand the job candidate's personality and choice of possible career field by understanding the linkage between college students' major and personality type. There are two models that are commonly used to measure personality: The Big Five Personality Traits (Goldberg, 1990) and Holland's Model of Personality Types (Holland, 1968). This study employs Holland's model for two reasons. First, a study done by De Fruyt and Mervielde (1999) examined a sample of graduating college seniors as they entered the job market and how significant each of the two models would be in predicting their vocational interests and nature of employment based on their personalities. The study concluded that only two of the Big Five traits were valid predictors, whereas Holland's model was clearly more significant. The second reason for choosing Holland's model is that it has been used in prior literature to link college major with an individual's personality, which is something that this study is also looking to do.

Holland's model provided strong evidence of the correlation between personality and college major (Swanson, 2011) by creating a description of a person-environment fit that compares a college-aged student's personalities to the environment and learning models of college majors (Holland, 1968; Pike, Smart, & Ethington, 2011; Smart, Feldman, & Ethington, 2000). Holland's model used six personality types (realistic, investigative, artistic, social, enterprising, and conventional), gaining it the abbreviation of RIASEC based on the first letter of each of the personality types (Armstrong & Vogel, 2009; Holland, 1968; Pike, 2006; Pike, et al. 2011; Swanson, 2011). The RIASEC constructs are multifaceted, combining an individual's abilities, perceptual skills and outlook, life goals, values, self-concepts, and coping behaviors to create their personality type (Armstrong & Vogel, 2009). A study by Pike (2006) further found that the person-environment fit was further described by the student's expectations of what their college experience in the major would be like and if it would align with their values. The personalities were broken down into six types: realistic, investigative, artistic, social, enterprising, and conventional (Armstrong & Vogel, 2009; Holland, 1968; Pike, 2006; Pike et al., 2011; Swanson, 2011).

Each of the six personality types are briefly described as follows. Realistic personalities prefer to work with machines and tools and want material rewards; they are practical and many times frank. Therefore, engineering majors are characterized in the realistic personality type (Holland, 1968; Pike, 2006; Pike et al. 2011). The investigative types have more of an inquisitive nature and prefer exploring and the acquisition of knowledge for knowledge's sake. They prefer to stay away from tasks that involve major human contact, such as sales, and are usually seen as asocial. Students of the biological and physical sciences, economics, and mathematics fall into this category (Holland, 1968; Pike, 2006; Pike et al. 2011). Artistic personalities are quite creative and do not like to have hard deadlines and restraining rules put on them because they are free-spirited. These personalities are found in fine arts majors (music, art, theater, etc.) (Holland, 1968; Pike, 2006; Pike et al. 2011). Social types typically love personal interaction and are characterized as extroverted, empathetic, and understanding. The majors that attract these personality types include social work, psychology, and history (Holland, 1968; Pike, 2006; Pike et al. 2011). Enterprising are characterized by mentoring and leadership roles. They also have strong interpersonal skills, but are more focused on persuading others to attain "organizational and personal goals." They are self-confident, energetic, and sociable. These personalities usually fall into business administration, management, and journalism (Holland, 1968; Pike, 2006; Pike et al. 2011). Lastly, conventional personalities are drawn to tradition and maintaining orderly routines. They are very methodical and careful and are focused on financial accomplishments. The majors that correlate with this personality type are accounting, data processing, and secretarial studies (Holland, 1968; Pike, 2006; Pike et al. 2011).

For the purposes of this study, only 5 of the 6 personality types are used. We chose not to use the realistic personality because we did not anticipate having participants with majors that would fall into this personality type. These majors and personality types are delineated in Table 1.

Table 1
RELATIONSHIP BETWEEN PERSONALITY TYPE AND COLLEGE MAJOR

Holland's Personality Type	College Majors Associated
Investigative	General biology, biochemistry/biophysics, chemical engineering, general chemistry, physics, finance, economics, risk management
Artistic	Arts, music, theater/drama, music/art education, dance
Social	Psychology, sociology
Enterprising	Business administration, marketing, business education, computer science
Conventional	Accounting, data processing

By assessing both personality type and college major, this study will examine both the company's culture and personality as well as the individual's personality and major choice. To get a complete picture of the job seeking process, we need to also understand how the two personalities (company personality and individual personality) fit together in a work environment.

Person – Organization Fit and Recruiting

Person-organization (P-O) fit is defined as the compatibility of a job applicant and the culture of their intended place of work. This compatibility consists of alignment of personal attributes, core values, and shared individual and organizational goals (Amos & Weathington, 2008; Coldwell et al. 2008). There are two main types of P-O fit: objective and subjective (Gardner, 2012). Objective fit is the actual fit as measured by assessments of congruence once the individual is an employee and is actually working in the environment (Gardner, 2012). Subjective fit, which is the P-O fit that will be the focus of this study, is based on a job applicant's perceived fit based on their own assessment of the culture and whether or not it would align with their attributes, values, and goals (Gardner, 2012).

Factors that affect P-O fit stem mainly from the correlation between the individual's personality, as manifested in their characteristics, values, and goals, and the model personality of the rest of the organization and its members (Cable & Judge, 1996; Schneider, 1987; Youngs et al. 2015). A study by Cable and Judge (1996) found that a job seeker's perception of P-O fit significantly predicted their job choice intentions, making P-O fit an important attribute in recruiting a specific job seeker. As with culture, the components of a good P-O fit are specific to the individual and as such different applicants find different components of a company attractive (Edwards & Billsberry, 2010). Some attributes (outside of basic values and goals) that may be considered are corporate citizenship, labor practices and environments, emphasis on diversity, and sponsorship of cultural activities (Aiman-Smith, Bauer, & Cable, 2001).

A company's image is then conveyed to potential applicants through their recruiting efforts. According to Amos and Weathington (2008), the amount of realistic information on the organization's culture that the applicant has played a large role in that applicant's confidence in the perceived P-O fit. Multiple studies (Coldwell et al. 2008; Lado & Wilson, 1994; Murphy, 1986) have shown that the selection system worked the best and provided the highest competitive advantage for a company (by acquiring passionate, inspired applicants who will not want to leave because of the P-O fit) when the designated recruiting department can find the most qualified applicants from whom to choose. Since subjective P-O fit is based on the audience's perception of the culture, it is important that companies can effectively describe their culture to a targeted group of applicants in an effort to recruit the applicants who provide the best fit.

Culture and P-O fit are not simply important for employees at an individual level and their feelings, though; ineffective cultures and improper P-O fit can actually lead to more tangible negative effects. More and more studies (Coldwell et al. 2008; Gregory, Albritton, & Osmonbekov, 2010; Kraut 1996; Marc & Farbrother 2003; Youngs et al. 2015) are finding that there is a strong connection between the degree of fit between an employee and the company's culture with employee satisfaction and job performance. Marc and Farbrother (2003) specifically describe that valuing the importance of the company culture is not a luxury, it is a necessity because if it is not attended too it will become a liability to the company. Other studies (e.g. Cable & Judge 1996; Van Vianen 2000; Van Vianen, Nijstad, & Voskuijl 2008) have concluded that an incorrect P-O fit can result in negative organizational attraction to outside of the company (making recruiting difficult), retention, and, again, job satisfaction. On the other hand, though, studies like McGinty and Reitsch (1992) and Judge and Cable (1997) have found that organizational cultures attract applicants who feel as though their values and characteristics align with that of the culture and that, if the employer can accurately create this pairing, they will have found a better applicant than one who only possessed the necessary "hard skills."

Equivalent studies are reporting similar results concerning the effect of company culture on their business performances and bottom lines. In a study by Cable and Judge (1996) examined the relationship between P-O fit perceptions and job pursuit intentions and concluded that perceived P-O fit significantly predicted that individuals commitment, job satisfaction, and turnover intentions once an actual employee of the organization. Additionally, Turban and Keon (1993) examined the effects of a company's culture on its organizational attractiveness to applicants and showed that the measured aspects of their culture were actually positively correlated with profitability. P-O fit can even affect the pay that the employee is willing to consider as shown in a study by Cantanzaro, Moore, and Marshall (2010), which concluded that an employee will decrease the threshold of what they will accept in monetary compensation if the culture is more supportive and in-line with their P-O fit.

An increasing number of companies and hiring managers are concerning themselves with company culture and the fit between a person and the organization in an effort to effectively manage the acquisition and retention of the "right" employees. These constructs are no longer simply an interest of the social sciences, but rather a reality that impacts all aspects of an organization, especially the bottom line (Barrick, Mount, & Gupta 2003).

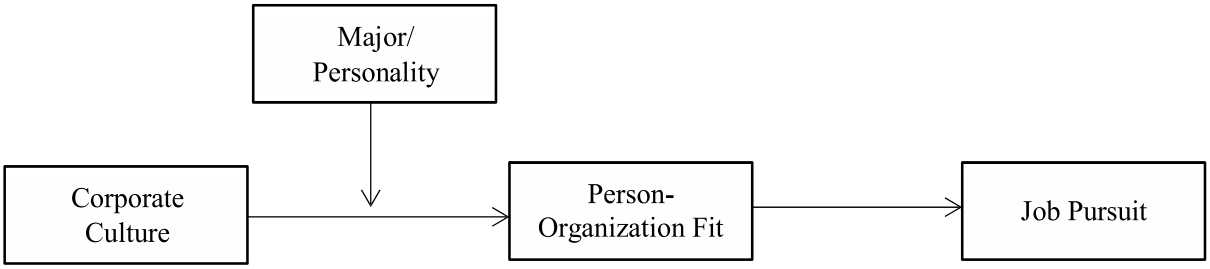
STUDY OF FIT BETWEEN COMPANY CULTURE AND COLLEGE MAJOR

This study served to analyze the P-O fit of college-age job applicants in their ideal company by studying the majors and personalities of each respondent and how that related to their pursuit of the culture. This study is different from other literature for a couple of reasons. First, other identified literature looked at the differences between supportive and competitive company culture preferences, while this research looked at company culture along the different dimensions of the Competing Values Framework. Second, this study focused on the relationship between college major and personality as a moderator for the relationship between company culture and P-O fit, whereas other studies did not make this comparison.

Research Question and Hypotheses

This research study examined the model in Figure 2, which links company culture to P-O fit, as moderated by a student's major and personality. P-O fit then leads to the student's pursuit of a job with that culture. Specific hypotheses for each of the relationships between variables follow.

Figure 2
THEORETICAL MODEL



A previous study by Gardner (2012) discovered that perceptions of P-O fit by job applicants did, in fact, differ between different culture types in the same way that Holland's study showed that perceptions of person-environment fit by college applicants differed across different majors, assisting those students in finding the best fit major for them from a culture standpoint. In a similar fashion, this study will look at combining Gardner and Holland's studies to determine how college majors (and their corresponding personalities as identified by Holland's theory) align with certain company cultures to create a person-organization fit. This research studied whether the different aspects of collaborate, create, control, and compete culture's affect student's perceived P-O fit, based on the student's major and their expectations of how the culture aligns with their values. We then analyze how this feeling of P-O fit impacts the candidate's pursuit of a job with that culture.

Specifically, Holland's investigative personality (relating to majors of the physical sciences) is described as one that values learning, but prefers to do so at an individual level. The control culture is characterized by valuing individualism, independence, and authority.

H1 Job applicants with investigative personalities will have a stronger P-O fit with an organization of the control culture.

The artistic personality (relating to majors of art, music, theater, etc.) is described as one that values creativity, expression of emotions, and being allowed to be free-spirited. Create culture is characterized by valuing collaboration, as well as innovation and taking risks.

H2 Job applicants with artistic personalities will have a stronger P-O fit with an organization of the create culture.

The enterprising personality (relating to majors of business administration, marketing, etc.) is described as one that values mentoring and persuading others; they are energetic and sociable. The collaborate culture focuses on creating a family feeling amongst the employees.

H3 Job applicants with enterprising personalities will have a stronger P-O fit with an organization of the collaborate culture.

The conventional personalities (relating to majors of accounting and data processing) value financial accomplishments and do not like unstructured behavior. The compete culture focuses on structure and working based on a procedure while trying to differentiate from the competition.

H4 Job applicants with conventional personalities will have a stronger P-O fit with an organization of the compete culture.

Lastly, the fit between the person and the organization has been shown in prior research to largely influence the individual's pursuit for a company and career path. As a result, when there is a high perceived fit between the person and the organization, there should be a high preference for a job with that organization.

H5 Job applicants who perceive a high fit between their major/personality and the organizational culture should express a preference for a job with that organization.

Study Description

Students at a medium sized liberal arts university in the Midwest participated in this study. Because the intent of this study is to look at how a student's major and personality affects their ideal company culture, college students from a variety of majors were surveyed for the study. The 224 participants in this study ranged from freshmen to fifth-year students and were split 78 male and 146 female students. Participants were recruited via an e-mail message that was sent to students in specifically selected, targeted major classes across the University. In addition, the recruitment e-mail was sent to several campus-wide organizations to encourage a wide variety of majors to participate in the study.

This study involved a between subjects experimental design. First, subjects each were asked to provide demographic information (including major). Then, they were provided with one of the theoretical descriptions of a company culture representing one of the four categories of the Competing Values Framework (see Appendix for company culture descriptions). They were asked to evaluate the appeal of the company culture. Next, the participants were asked to answer a series of questions surrounding their preference for different aspects of company culture and job pursuit intentions in general, as adapted from Aiman-Smith et al. (2001). Finally, participants were asked to complete an IIP RIASEC Markers Scales test to describe their personality. This test was taken through a third party site and participants were asked to report the three-letter output that they received from the RIASEC test on the survey.

Measures

Company Culture Manipulation

Four company culture descriptions were created based on the types described in the Competing Values Framework. The descriptions were derived strictly from the framework explanations included in the literature review so to most closely match the culture descriptions as defined by prior literature. Each of these descriptions included information about the values of the organization and the hierarchical structure of the organization. The descriptions used in this study can be found in the Appendix.

Person-Organization Fit Measures

To measure the fit between the person and the organization, this study used Aiman-Smith et al's. (2001) measure of organizational preference. We chose this measure because we felt as though it best measured P-O fit by testing it through two measures (job pursuit intentions and organizational preference). We also liked that it covered P-O fit both from a specific standpoint (regarding the culture description that the participant read) as well as a general standpoint (regarding general organizational preference). A sample question from this measure includes “I would prefer to work in an organization that values collaboration with other employees in my department” (Aiman-Smith et al. 2001). These items were shown to be interrelated ($\alpha = 0.691$).

Job Pursuit

The ultimate choice in job pursuit will show the participant’s feelings toward pursuit of a company whose culture description is similar to the one that they read. It was measured using Aiman-Smith et al.’s (2001) job pursuit questions, which were then summed to create an index of job pursuit. These items were shown to be highly interrelated ($\alpha = 0.899$).

Analysis and Results

Majors and Personality

In order to test the hypotheses, we first ran an analysis on the correlation between the expected personality type based on their major and their reported personality type, in order to confirm Holland's (1968) theory. We compared the reported results of the participant's RIASEC markers test to the personality type that they would be expected to have based on their major. The RIASEC markers were reported in a series of three letters each representing one of the RIASEC personality types. As evident in Table 2 below, the results show that there were significant associations between the expected personality types based on the participant's major and the actual personality types from the RIASEC measure that the participants completed for four of the five groups. Specifically, for those with majors that fall in the Investigative, Artistic, Enterprising, or Conventional personality types, we see a significant association with the participants actual personality type. However, for the Social majors, we do not see a significant association with the actual personality types. However, this could be due to the low participation of students in those majors.

Table 2
ASSOCIATION BETWEEN MAJOR AND INDIVIDUAL PERSONALITY TYPES

Expected Personality Type of Major	**Matched RIASEC Personality Type**	**Different RIASEC Personality Type**	**Chi-Square Value**	**Significance Level**
Investigative	26	9	17.491	.002**
Artistic	11	0	22.181	.000**
Enterprising	35	5	11.595	.021**
Conventional	9	2	9.834	.043**
Social	8	1	5.519	.238

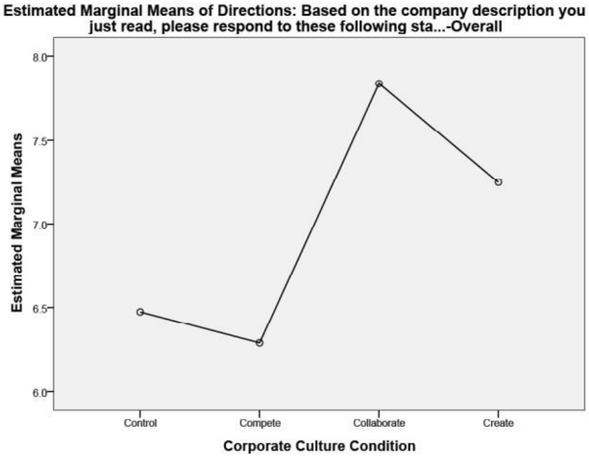
** $p < .05$

Major/Personality and Organization Culture to P-O Fit

We then used a 4 x 5 ANOVA, where the independent variables are the four types of company culture (collaborate, create, control, and compete) and the five different personality types (investigative, artistic, enterprising, conventional, and social) and the dependent variable is the participant's indicated overall satisfaction with the company described (indicating P-O fit).

The independent variables of major/personality was not found to be significant (F (4) = 0.775, p = .54) in predicting P-O fit of a participant. However, the company culture was significant in the prediction of the participant's perceived P-O fit (F (3) = 4.109, p = .009). This means that the company culture that a participant read had an effect on their feeling of P-O fit with the theoretical company with that culture. Based on the graph in Figure 3, it appears that this significant effect is being driven by the high evaluations of P-O Fit for individuals who read about companies with collaborate and create cultures and low evaluations of P-O Fit for individuals who read about companies with control and compete cultures. The interaction between the company culture manipulation and the college major was also found to be insignificant in the prediction of P-O Fit perceptions (F (12) = 0.783, p = .667).

Figure 3
EFFECT OF CORPORATE CULTURE ON P-O FIT

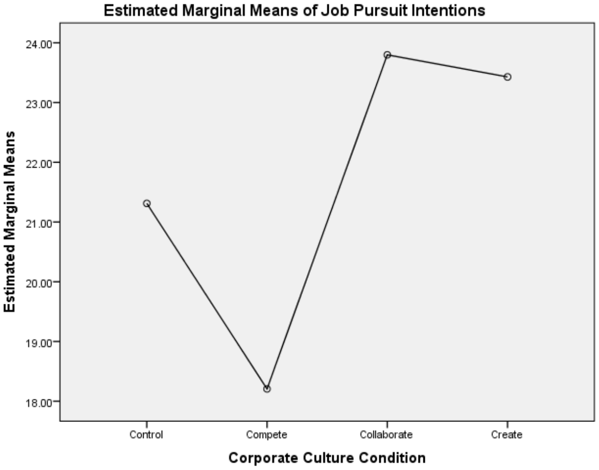


Major/Personality and Company Culture to Job Pursuit

As follow-up, we ran a 4x5 ANOVA between the four possible types of culture to have been seen and the five types of majors from Holland's (1968) framework on the job pursuit index. Again, the company culture was found to be significant in predicting the pursuit of a job (F (3) = 9.033, *p* = .000). This means that the company culture that a participant read had an effect on their intentions to pursue a job with that company. As evident in Figure 4 below, the results show that those who read about Collaborate and Create company cultures indicated that they had higher intentions to pursuit those jobs than those in the Compete culture condition.

The majors/personalities, however, were not significant in predicting job pursuit (F (4) = 0.673, *p* = .612). In addition, the interaction between major and company culture did not have a significant effect on job pursuit (F (12) = 1.001, *p* = .451). This supports our prior findings of company culture being a factor but major/personality not.

Figure 4
EFFECT OF CORPORATE CULTURE ON JOB PURSUIT INTENTIONS



P-O Fit to Job Pursuit

Finally, we ran a regression of the overall P-O Fit on the index of job pursuit. Perceived P-O fit was shown to be significant in predicting a participants pursuit of that job (R^2=.398, β = 0.631, p = .000). This means that a participant's feeling of P-O fit has a significant positive effect on their choice to pursue a job with a company of similar culture. In other words, as the perceived fit between the individual and the organization increases, so does their desire to pursue a job with that organization.

CONCLUSION

Overall, this study linked the corporate culture of an organization to intentions to pursue a certain job with that company through personality type, college major, and the fit between the person and organization's personalities. The study presented in this research yielded some interesting and novel results. Specifically, the study supported prior research by Holland (1968) and others (including Pike 2006) in showing that there was a significant correlation between college major and personality type on the RIASEC scale. Contrary to theory, however, the interaction between major/personality and company culture and their effect on perceived P-O fit was not found to be significant in all cases. This correlation was significant for the artistic personality type, supporting H2. However, this was not significant for investigative, enterprising, or conventional personalities, however, making H1, H3, and H4 unsupported.

In addition, results from this study show that a college-aged job seeker's perception of P-O fit is driven by their perception of the organization through its culture, and their overall satisfaction with that perception. This is shown because the relationship between company culture read and perceived P-O fit, as well as the relationship between company culture read and job pursuit were deemed to be correlated. Furthermore, this perceived P-O fit significantly predicts their choice in pursuing the job, as shown through their correlation. These findings are consistent with prior research by Cable and Judge (1996). This, therefore, supports H5.

This study provides some interesting implications for both job seekers and recruiters. Specifically, job seekers might be interested in the results of this study because of the significant associations between college major and personality type as well as the importance of the fit between the personalities of the individual and the organization. First, we find that college majors seem to attract individuals with a certain type of personality (specifically, those with investigative, artistic, enterprising, and conventional personalities). As such, college students with a certain type of personality might use the results of this study to help them choose a major and a subsequent career field. Second, recent college graduates and other job seekers could be interested in this study because of the significant effect of company culture and P-O fit on job pursuit. Specifically, the company culture was significant in the prediction of the participant's perceived P-O fit as well as the pursuit of a job. Job seekers should then find the discussion of the company culture at a company where they are thinking about a job or career incredibly important. In addition, the results of this study suggest that job seekers might look closely at the company culture when they are applying for an choosing between job offers.

The finding on the importance of company culture and P-O fit is important for job seekers, but it might in fact be more important for recruiters and Human Resource managers. Given that the company culture is so important and predictive of P-O fit and job pursuit, it would seem like recruiters would pay careful attention to how they frame the culture of the organization in their promotional and recruitment materials (i.e. brochures, websites, job fairs, etc.). In addition, the results could indicate some specific targeting strategies for recruiters to target certain types of majors and personalities in their recruitment and hiring processes.

Limitations

This study experienced several limitations that should be acknowledged and could lead to future research. First, we believe that we may have experienced sample selection issues. We received a generally representative sample; however, it was skewed toward business majors and specifically business majors in a handful of classes. As a result, there was possibly self-selection by the students in choosing a specific class in which the survey was administered. Also, we only administered the survey to students at a medium-sized liberal arts school, and recruits students with vast leadership and extra-curricular experience. This may also have skewed our results.

Additionally, there may have been acquiescence bias in allowing the participant to simply rate the company description that they read and not forcing them to choose between company cultures. If we had forced them to rank or otherwise decide between the culture descriptions, we may have forced some personality types into choosing based on their expected personal values. We may also have forced participants to more deeply consider the differences between cultures and the positives and negatives of each culture. This may have decreased the variance between the feelings of fit with the collaborate and create cultures versus the feeling of fit with the control and compete cultures.

Directions for Future Research

This study contributes to the literature on company culture and P-O fit by being one of the first to examine the integration of major and personality into determining the factors of identifying P-O fit. However, because the sample was slightly skewed, we would first suggest that replicating this study would represent an important contribution to the research community. Replicating this study, especially, with a sample that included a more evenly distributed set of majors would be vastly worthwhile. Also, potentially replicating the study on the campus of a larger, public school may give insight different and interesting perspective on the issues presented in this research.

Secondly, further research would be greatly benefitted in requiring participants to choose between the different company cultures. If participants were able to have more symmetric information regarding the cultures and their positives/negatives, they would potentially make a more educated decision. Also, if participants were forced to make a decision regarding their pursuit of different cultures, this would mitigate the acquiescence bias.

APPENDIX

Control Culture

Company X is characterized by well-defined stability and control for authority and decision making. They observe a vertical management structure with multiple layers of management and operate using standard operating procedures. A core assumption in Company X's culture is that control, stability, and predictability foster efficiency. They believe that employees meet expectations when their roles are clearly defined. As a result, Company X values precise communication, routines, formalization, and consistency. Employees are expected to promote efficiency, timeliness, and smooth functioning.

Compete Culture

Company X is focused on stability and control, working as a part of a larger hierarchy of suppliers, contractors, customers, etc. Their emphasis is on making those transactions as efficient as possible to optimize profit and success. Company X values competition and positioning and track employees based on performance results. They rely on rules and standard operating procedures to drive their operations. They reach an achievement by strong focus, producing competitiveness and aggressiveness and resulting in productivity and shareholder value in the short and immediate term. Company X values clear goals and runs a contingent rewards program to motivate employees to aggressively perform and meet stakeholders' expectations. They value communication, competence, and achievement. To uphold this, employees focus on planning, task focus, centralized decision making, and articulation of clear goals. Their main goal is in beating their competitors, achieving their goals, improving product quality, and enhancing their market share and profitability.

Collaborate Culture

Company X is internally focused and is of the mentality that they should strive to be the best that they can be and that it will all play out in the market. They operate as families and have a strong focus on group commitment and loyalty. The organizational structure is flexible. Company X strongly views their employees as their main asset and are deeply focused on employee satisfaction. They strive to provide their employees with "an opportunity to grow and learn" as individuals while completing their work for the company. The company believes that "organizations succeed because they hire, develop, and retain their human resource base." They value attachment, affiliation, membership, and support, and focus strongly on teamwork, participation, employee involvement, and open communication. They measure the success of their culture based on employee morale, satisfaction, and commitment.

Create Culture

Company X is focused externally has a flexible organizational structure. They strive for success by comparing themselves to their competition. They are innovative with an entrepreneurial spirit, and they move and adapt quickly. A fundamental believe at Company X is that change fosters the creation or garnering of new resources. They encourage members to be creative and take risks, and they value growth, stimulation, variety, autonomy, and attention to detail. Company X's culture could be characterized as risk taking, creative, and adaptable. Consequently, this mean that they cultivate innovation and cutting-edge outputs.

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PETER SENGE'S LEARNING ORGANIZATION: A CRITICAL VIEW AND THE ADDITION OF SOME NEW CONCEPTS TO ACTUALIZE THEORY AND PRACTICE

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ABSTRACT

Since few decades we are living in a world characterized by a more and more accelerated shift of change. Indeed, "our environments are more and more complex, more and more interdependent, more and more fleeting, more and more unstable, and more and more unforeseeable. In addition, this shift of change of growing complexity is continually accelerating. Thus, this new context continually requires greater capabilities of adaptation, relegating to us the responsibility of our learning, and it is asking for the creation of a culture of continuous change and learning." (Lapointe, 1998, p. 2) Trying to reach this objective, in 1987, Peter Senge and a team of researchers at the Sloan School of Management of the Massachusetts Institute of Technology (MIT) suggested a new organizational culture of continuous change and learning or, in other words, to build learning organizations, organizations which are capable to generate and share knowledge. Senge's view of building learning organizations is articulated around five fundamental disciplines: systems thinking, personal mastery, mental models, shared vision, and team learning. In this paper, we discuss about the learning organization and the organizational learning, we bring a critical view of the learning organization, such as proposed by Senge, and we suggest the addition of two new concepts (e.g., knowledge generation and sharing, and organizational behavior) to those integrated into the Senge's five core disciplines in order to help actualize the learning organization theory and practice, and to perform a better management of the individual and organizational knowledge and the organizational behavior of people within the enterprises.

INTRODUCTION

Since few decades we are living in a world characterized by a more and more accelerated shift of change. Indeed, "our environments are more and more complex, more and more interdependent, more and more fleeting, more and more unstable, and more and more unforeseeable. In addition, this shift of change of growing complexity is continually accelerating. Thus, this new context continually requires greater capabilities of adaptation, relegating to us the responsibility of our learning, and it is asking for the creation of a culture of continuous change and learning." (Lapointe, 1998, p. 2) In this changing mind of organizational learning culture, at the end of the 1980s, business management academics and senior managers began to discuss about the notion of "learning organization". Ray Stata, Chief Executive Officer (CEO) at Analog Devices Inc., suddenly launched the following idea: "The pace at which people and organizations learn may become the only source of sustainable competitive advantage." (Stata, 1989; quoted in Senge, 1990a, p. 7) And, in the middle of 1990, in a conference organized at Massachusetts Institute of Technology (MIT) titled "Transforming Organizations" two questions were continually remaining: How can we build organizations in which continuous learning could be ubiquitous? What type of people is the most likely to become a leader in a learning organization? (Senge, 1990a)

In fact, since about twenty-five years, a team of researchers (Society for Organizational Learning, Sloan School of Management, MIT), leaded by Peter Senge, are actively thinking about the conception and development of a learning culture favouring the adaptation of our organizations and communities to a more and more changing environment. They propose a new organizational culture of continuous learning or, in other words, to build learning organizations (Lapointe, 1998), organizations which are capable to generate and share knowledge.

In a beautiful morning of fall 1987, Senge had a vision. During his morning meditation, he is suddenly becoming conscious that learning organization would become a new management "buzzword". So, all the developments which took place in the next four years (1987-1990) have pursued Senge's initial intuition to finally conduct him to write the book *The Fifth Discipline: The Art & Practice of the Learning Organization*. Following the publication of this book in 1990, the learning organization, as imagined by Senge, became one of the more prominent management "buzzword" of the first half of 1990s. According to Senge, the major challenge in building a learning organization is related to the need of a sustained effort. It is relatively easy to attract people with new ideas, but it is harder to make such that people practice these new ideas in their daily life, says Senge. To that end, in 1991, Senge founded the Centre for Organizational Learning of the Sloan School of Management at MIT. This Centre is, in fact, a consortium of medium-large sized enterprises, including Ford, Harley-Davidson, Federal Express, EDS, Intel, Herman Miller, AT&T, Philips Display Components (a North American division of Philips Electronics), Merck Frosst, Shell Oil, US West, and GS Technologies (Senge, 1990b). It serves as the fundamentals to practice the five disciplines which are the essence of the learning organization.

Many consultants and organizations have recognized the commercial significance of organizational learning -- and the notion of the learning organization has been a central orienting point in this (Smith, 2001a). Writers have sought to identify templates, or ideal forms, "which real organizations could attempt to emulate" (Esterby-Smith & Araujo, 1999, p. 2). In this sense the learning organization is an ideal "towards which organizations have to evolve in order to be able to respond to the various pressures" [they face] (Finger & Brand, 1999, p. 136). It is characterized by the recognition that "individual and collective learning are the key" (Finger & Brand, 1999, p. 136). Two important things are resulting from this: (1) while there has been a lot of talk about learning organizations it is very difficult to identify real-life examples. This might be because the vision of "too ideal" or because it is not relevant to the requirements and dynamics of organizations; and (2) the focus on creating a template and upon the need to present it in a form that is commercially attractive to the consultants and writers has led to a significant under-powering of the theoretical framework for the learning organization (Smith, 2001a). There is a distinct contrast with the study of organizational learning.

> "Although theorists of learning organizations have often drawn on ideas from organizational learning, there has been little traffic in the reverse direction. Moreover, since the central concerns have been somewhat different, the two literatures have developed along divergent tracks. The literature on *organizational learning* has concentrated on the detached collection and analysis of the processes involved in individual and collective learning inside organizations; whereas the

> *learning organizations* literature has an action orientation, and is geared towards using specific diagnostic and evaluative methodological tools which can help to identify, promote, and evaluate the quality of learning processes inside organizations." (Esterby-Smith & Araujo, 1999, p. 2; see also Tsang, 1997)

So we could argue that organizational learning is the "*activity* and the *process* by which organizations eventually reach the ideal of a learning organization" (Finger & Brand, 1999, p. 136). Our aim in this paper is to discuss about the learning organization and the organizational learning, to bring a critical view of the learning organization, as suggested by Peter Senge, and to propose the addition of two new concepts (e.g., knowledge generation and sharing, as well as organizational behavior) to the five core disciplines of a learning organization in order to help actualize the learning organization theory and practice, and to perform a better management of the individual and organizational knowledge and the organizational behavior of people. The paper is structured as follows: first, we present the learning organization rationale; second, we discuss about the organizational learning as an integral part of the learning organization; third, we bring a critical view of the learning organization; and finally, we propose the addition of two new concepts to the five fundamental disciplines which are the essence of a learning organization.

LEARNING ORGANIZATION RATIONALE

The first section of the paper is devoted to present the basic rationale of the learning organization such as imagined by Peter Senge. The rationale is articulated around the following elements: the interest in learning organization, the definition of a learning organization, the five core disciplines of a learning organization (systems thinking, personal mastery, mental models, shared vision, and team learning) and their concepts, as well as the notion of "leadership" which is essential to a learning organization.

Why to Be Interested in Learning Organizations?

Basically, it is the search for the (unattainable) Holy Grail. Companies are seeking to improve existing products and services (continuous improvement), and innovation (breakthrough strategies). This has resulted in a plethora of initiatives such as Total Quality Management (TQM) and Business Process Reengineering (BPR). But companies are finding that such programs succeed or fail depending on human factors such as skills, attitudes, and organizational culture. It also appears that many implementations are geared to highly specified processes, defined for anticipated situations. The current interest in the learning organization stems from the recognition that these initiatives, by themselves, often do not work. Something more is needed to: (i) cope with rapid and unexpected changes where existing "programmed" responses are inadequate; (ii) provide flexibility to cope with dynamically changing situations; (iii) allow front-line staff to respond with initiative based on customer needs vs. being constrained by business processes established for different circumstances. (Farago & Skyrme, 1995) With the pace of change ever quickening, the need to develop mechanisms for continuous learning and innovation is greater than ever, argue these authors.

The emergence of the idea of the learning organization is wrapped up with notions such as "learning society" and "knowledge economy". Perhaps the greater defining contribution here was made by Donald Schön. He provided a theoretical framework linking the experience of living in a situation of an increasing change with the need for learning. (Smith, 2001a)

> "The loss of the stable state means that our society and all of its institutions are in *continuous* processes of transformation. We cannot expect new stable states that will endure for our own lifetimes.
>
> We must learn to understand, guide, influence, and manage these transformations. We must make the capacity for undertaking them integral to ourselves and to our institutions.
>
> We must, in other words, become adept at learning. We must become able not only to transform our institutions, in response to changing situations and requirements; we must invent and develop institutions which are 'learning systems', that is, systems able of bringing about their own continuing transformation." (Schön, 1973, p. 28)

One of Schön's great innovations was to explore the extent to which enterprises, social movements, and governments were learning systems -- and how those systems could be enhanced (Smith, 2001a). He suggests that the movement towards learning systems is, of necessity, "a groping and inductive process for which there is no adequate theoretical basis" (Schön, 1973, p. 57]. In addition, Donald Schön went on with Chris Argyris to develop a number of important concepts regarding organizational learning; of particular importance for later developments was their interest in feedback and single- and double-loop learning (Smith, 2001a) (we will discuss about these concepts in the next section of the paper).

Subsequently, we have seen very significant changes in the nature and organization of production and services. Companies, organizations, and governments have to operate in a global environment that has altered its character in significant ways (Smith, 2001a). As Leadbeater (2000) says, companies need to invest not just in machinery to make production more efficient, but in the flow of know-how that will sustain their business. Organizations need to be good at knowledge generation, appropriation, and exploitation. It was in this context that Peter Senge began to explore "the art and practice of the learning organization". And, several years later, Mitra and Gupta (2008) argue that in today's fast paced global environment, one must possess intimate knowledge of the rapidly evolving global marketplace and its impact on the current and planned set of products and services. It is then extremely important to pursue Senge's work and to continue the exploration of "the art and practice of the learning organization".

Defining a Learning Organization

According to Senge, learning organizations are:

> "…organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together." (Senge, 1990b, p. 3)

The basic rationale for such organizations is that in situations of rapid change only those that are flexible, adaptive, and productive will excel. For this to happen, it is argued, organizations need to "discover how to tap people's commitment and capacity to learn at *all* levels" (Senge, 1990b, p. 4).

In his book published in 1995, Brilman adds two new dimensions to the Senge's definition of a learning organization which seem to us extremely important to take into account, that is, the use of auto-evaluation referents and the benchmarking process. So, according to Brilman,

> "… it is an organization which put much emphasis on its personal formation and development, but it is much more than this: it is a 'smart' organization in the sense that it develops, on the one hand, its vigilance and speed of perception of changes in the environment and, on the other hand, it improves the understanding of its functioning as a system. It is continually in an auto-evaluation process in comparing itself to the world bests, and it is searching to know and benchmark those which make better. Thus, it stays awake, flexible, and proactive. In such a way, it stays an *always young* organization." (Brilman, 1995, p. 213)

For Senge, real learning gets at the heart of what it is to be human. We become able to re-create ourselves, argues Senge. And this applies to both individuals and organizations. Thus, for a learning organization it is not enough merely to survive. "'Survival learning' or what is more often termed 'adaptive learning' [learning allowing the adaptation to the situation] is important -- indeed it is necessary. But for a learning organization, 'adaptive learning' must be joined by 'generative learning', learning that enhances our capacity to create." (Senge, 1990b, p. 14)

The Five Fundamental Disciplines of a Learning Organization

Peter Senge proposed five fundamental disciplines to put into practice for becoming a learning organization: systems thinking, personal mastery, mental models, shared vision, and team learning. A discipline is viewed by Senge as a series of principles and practices that we study, master, and integrate into our lives. Each of the five learning disciplines can be thought of on three distinct levels: (1) Practices (what you do); (2) Principles (guiding ideas and insights); and (3) Essences (the state of being those with high levels of mastery in the discipline) (Senge, 1990b, p. 373). Each of the five disciplines provides a vital dimension to the learning organization. Each is necessary to the others if organizations are to "learn". We will now take a closer look at these five disciplines.

Systems Thinking -- The Cornerstone of the Learning Organization

"It is vital that the five disciplines develop as an ensemble. This is challenging because it is much harder to integrate new tools than simply apply them separately. But the payoffs are immense. This is why systems thinking is the fifth discipline. It is the discipline that integrates the disciplines, fusing them into a coherent body of theory and practice. It keeps them from being separate gimmicks or the latest organization change fads. Without a systemic orientation, there is no motivation to look at how the disciplines interrelate. By enhancing each of the other disciplines, it continually reminds us that the whole can exceed the sum of its parts." (Senge, 1990b, p. 12)

Senge calls systems thinking the fifth discipline given in his vision it is the conceptual cornerstone underlying all the five learning disciplines. All the disciplines are concerted by a shift of mind from seeing parts to seeing wholes, from seeing people as reactive to seeing people as active participants in modeling their reality, from reacting to the present to shaping the future. According to Senge, the essence of the systems thinking discipline is related to a shift of mind which consists to see interrelations instead of linear cause/effect chains and processes of change instead of snapshots. He argues that reality is made up of circles, while we see right lines. It is at this point that our limitation as systemic thinkers is beginning. One of the reasons of this fragmentation of our thought comes from our language. Language is modeling perception. What we see is what we are prepared to see. If we want to see systemic interrelations, only an interrelational language made up of circles can conduct us to that. Without such a language, our traditional ways to see the world produce fragmented visions and counterproductive actions (Senge, 1990b).

Systemic thinking principles are not significant in themselves, but because they represent a more effective way to think and act. Integrating them into our behavior requires what David McCamus, Chair and CEO at Xerox Canada, calls a "peripheral vision": the ability to see the world in a wider-angle and not in a lens (a tubular vision) such that we can be conscious of how our actions are interrelated with other domains (quoted in Senge et al., 1994, pp. 87-88). For example, Federal Express (FedEx) has experienced systemic thinking in a pilot project. Its customers have noted that it is more opened, more collaborative, and more able to resolve strategic questions. On the other hand, according to Senge et al. (1994), a good systemic thinker, particularly in an organizational context, can see four levels operating simultaneously: (1) the events; (2) the behavioral schemes; (3) the systems; and (4) the mental models.

One of the more important insights of systemic thinking in a learning organization is that some structural schemes are always and always coming back. These "systems archetypes" or "generic structures", such as Senge is calling them, possess the key to learn seeing structures in both our personal and organizational lives. They suggest that management problems are far to be all unique. Their objective is to recondition our perceptions such that we can see not only the structures involved, but also the influence of these structures (Senge, 1990b). Researchers have identified about twelve systems archetypes until now. Each of them is formed of reinforcement processes, balance processes, and delays. The reader interested to know more about these systems archetypes can take a look at Appendix 2 of Senge's (1990b) book.

The last step in systemic thinking is the leverage effect, that is, to see where actions and changes in structures can conduct to significant and durable improvements. Often the leverage effect obeys to the principle of the less means: the better results are not coming from large-scale efforts, but rather from well-directed small actions. Our non-systemic ways of thinking are very harmful, argues Senge, more specifically because they conduct us to focus on low effect changes: we focus on symptoms where tension is greater. We repair or improve symptoms. In fact, such efforts can, at best, improve the situation at short term and worst at long term (Senge, 1990b).

Personal Mastery

Personal mastery is helping us to continuously clarify and deepen our personal vision, to focus on our energies, to develop our patience, and to see the reality objectively (Senge, 1990b). It also allows us to expand our personal ability to create the results we truly seek and to model an organizational behavior which encourages all of its members to develop themselves towards the goals and objectives they really want to reach (Senge et al., 1994). Personal mastery is, as such, a master piece of the learning organization, the spiritual foundation of the learning organization. It is essential since the commitment and ability to learn of an organization cannot be greater than those of its members (Senge, 1990b).

In fact, we must not forget that organizations learn merely through people that are part of them. Inversely, individual learning does not guarantee organizational learning. But without it no organizational learning occurs (Senge, 1990b) (we will discuss about organizational learning in the next section of the paper).

According to Senge, "whether it is research and development, company management, or any other aspect of business, the active force is 'people.' And people have their own will, their own mind, and their own way of thinking. If the employees themselves are not sufficiently motivated to challenge the goals of growth and technological development … there will simply be no growth, no gain in productivity, and no technological development." (Senge, 1990b, pp. 139-140) In addition, Bill O'Brien, Chair at Hanover Insurance Company, argues that "managers must redefine their job. They must give up 'the old dogma of planning, organizing, and controlling,' and realize 'the almost sacredness of their responsibility for the lives of so many people.' Managers' fundamental task is 'providing the enabling conditions for people to lead the most enriching lives they can.''' (quoted in Senge, 1990b, p. 140) And personal mastery is a discipline which can help them to reach these objectives, says Senge.

Personal mastery is the expression that Senge and his colleagues are using to mean the discipline of personal growth and learning. Apparently, people having high levels of personal mastery continually expand their ability to create the life they really want. O'Brien adds that these people are more committed, they take more initiatives, they have a deeper and larger sense of responsibility in their work, they learn more faster, and they are, in fact, more happy (personal development have deep impacts on people) (quoted in Senge, 1990b, p.143).

Personal mastery goes beyond competencies and abilities, although it is based on these two elements. It also goes beyond deployment or spiritual openness, although it requires spiritual growth. It means to approach someone's life as a creative work, to see the life on a creative point of view instead of reactive. When personal mastery becomes a discipline which we integrate into our lives, it then underlies two movements: the first is to continuously clarify what is important for us and the second is to constantly learn how to see the actual reality in a clearer way (Senge, 1990b). The essence of personal mastery is to learn how to generate and sustain inside us a strength called "creative tension", exactly as if we were putting at work an elastic band between the two poles of our view and the actual reality (Senge et al., 1994). Viewed in such a context, learning does not mean to get much information, but to expand our ability to produce the results we truly seek in the life. It is therefore a lifelong generative learning. And learning organizations are not possible without that people at each level are practicing it (Senge, 1990b).

The discipline of personal mastery is also learning to us to do not reduce our vision, even if it appears impossible to us. And, paradoxically, it teaches us that the content of the vision is not important in itself (Senge et al., 1994). In brief, it is not what the vision is, but rather what it is bringing to us that is important. In addition, the practice of personal mastery is learning to us to do not coming back to see the world as it is, even if the latter often returns us not comfortable. Finally, this discipline is learning us to choose: to choose the results and actions which will be modeling our destiny (Senge et al., 1994).

Mental Models

As for the discipline of mental models, these one allows us to see at such point visions, postulates, a priori, generalizations, and presupposed, deeply and unconsciously anchored in our minds, model our observations and have a great influence on both our decisions and actions (Lapointe, 1998). This discipline is helping us to deeply enter inside us in order to expose and elucidate these models, to test them, to clarify them, to improve them, to destruct them, to multiply and/or replace them if necessary (Senge, 1990b; Senge et al., 1994). Of the five disciplines essential to the construction and practice of a learning organization, it is those who offer the higher influence for "change".

First, one important thing that all managers know is that several of the best ideas are never put into practice. Brilliant strategies are never transformed in concrete actions. Systemic adds-on never take their place in the functioning politics of organizations. For example, a pilot study can show that a new approach brings better results, at everyone's satisfaction, but this one will never be adopted "at large". Senge (1990b) indicates that if new adds-on, ideas, or strategies are never put into practice, it is because they are in conflict with our deep internal images of the world, images which are limiting us to our only familiar ways of thinking and acting. It is for this reason, according to him, that the discipline of mental models, which consists in emerging, testing, and improving our internal images of the world, promises to be a major progress in building learning organizations.

In studying the advances of the cognitive science in his work *The Mind's New Science: A History of the Cognitive Revolution*, Howard Gardner wrote: "In my mind the major advance of the cognitive science has been the clear demonstration … of a level of mental representation" (Gardner, 1985; quoted in Senge, 1990b, p. 175) active in different aspects of the human behavior. In fact, our mental models not only determine our way to give a meaning to the world, but also our way to engage action. Working since more than thirty years on mental models and organizational learning, Chris Argyris says this: "Although people have not a congruent behavior with their espoused theories [what they preach], they have a congruent behavior with their theories-in-use [their mental models]." (Argyris, 1982; quoted in Senge, 1990b, p. 175)

Mental models are images, hypotheses, and histories that we are maintaining in our minds regarding ourselves, other people, institutions, and each aspect of the world in which we are living (Senge et al., 1994). They can be simple generalizations or complex theories, but the more important to remind us is that our mental models are actives, they model our actions. Why our mental models have so much power to affect our actions? According to Senge, it is partially because they have the great power to affect what we see. Two people having different mental models may observe the same event and to describe it differently given they place their attention on different details (Senge, 1990b; Senge et al., 1994).

According to Hanover's Chair, Bill O'Brien, "in the traditional authoritarian organization, the dogma was managing, organizing, and controlling. In the learning organization, the new 'dogma' will be vision, values, and mental models. The healthy corporations will be ones which can systematize ways to bring people together to develop the best possible mental models for facing any situation at hand." (quoted in Senge (1990b), p. 181) But the problems with mental models are not related to the fact that they are either good or bad. By definition, all the models are simplifications. The problems rather arise when models are tacit, that is, when they exist under the level of our conscious (Senge, 1992; Senge et al., 1994). Indeed, given mental models are habitually tacit, they are often not tested and examined. They are generally invisible to us until the time we decide to examine them. The main task of this discipline is therefore to make such that mental models emerge, to explore them, and to talk about them the more freely possible in order to help us not only to see the mirror, but also the frame of the mirror: to see its impacts on our lives and to find ways to reframe the mirror in creating new mental models which will be more useful in the future to see the world (Senge et al., 1994).

On the other hand, to make such that our mental models emerge, to explore them… require some particular learning abilities. Practitioners of the "action science", such as Argyris and Schön, are grouping these abilities into two main classes: reflection and investigation. Abilities of reflection are related to slowing down our thinking processes such that we may become more conscious about the way we develop our mental models and about the way the latter influence our actions. Abilities of investigation, them, concern the way of acting in our face-to face interactions with others, especially in the negotiations regarding complex and contentious questions (Argyris & Schön, 1978, Argyris et al., 1985, Argyris, 1985; quoted in Senge, 1990b, p. 191).

Finally, Peter Senge and his colleagues suggest some guidelines to help those which want to get the abilities of reflection and investigation (see Senge et al., 1994). They also propose means to improve our communications with others through reflection and action using what Argyris calls a *ladder of inference* (see Argyris, 1982; Argyris, 1990; Argyris et al., 1985).

Shared Vision

Regarding the discipline of shared vision, this one consists to integrate a deep sense of involvement between the members of an organization in developing “shared images of the future” they want to create for it, that is, values, objectives, and mission. It consists, in fact, to establish a set of principles and guiding practices which lead the actions of all members of the organization as a group (Senge, 1990b; Senge et al., 1994). The practice of a shared vision then requires the ability to discover shared images of the future which favour true involvement instead of approval. Thus, in mastering this discipline of the learning organization, leaders are becoming conscious of the counterproductive effect to try to impose a vision to the organization, even if this one comes from the heart (Senge, 1990b).

More specifically, a shared vision is strength in people’s heart, an impressive strength of power. It can be inspired by a unique idea, but it requires the support of several people. A shared vision is essentially focusing on the creation of a shared sense where none existed before. It is, in fact, the answer to the question: What do we really want to create in this organization? “Exactly as personal visions are images that people carry in their heads and their hearts, shared visions are images that people carry throughout the organization. They create a sense of community which allows the organization and puts coherence in the different activities.” (Senge, 1990b, p. 206) Furthermore, truly shared visions require a continual dialogue where people are not only free to express their dreams, but they learn how to listen others’ dreams (Senge, 1990b). In brief, when the members of an organization truly share a vision, they become involved and connected, linked together by a common aspiration and identity reflecting their own personal vision.

Senge truly insists on the fact that a shared vision is vital to the learning organization, particularly because it provides the point of reference and the energy for learning. Adaptive learning do not require a vision, while generative learning cannot exist without a vision, that is, it only appears when people want to accomplish something deep inside them. Thus, when the members of an organization develop a shared vision of what they really want to create, they are then necessarily in a generative learning environment. The idea of generative learning (continually expand our ability to create) seems abstract and denuded of sense until people become truly excited in facing a particular vision they want to realize (Senge, 1990b). Their relation with the organization is then completely transformed: it is no longer “their organization”, but rather “our organization”. And people who were not confident in others before are beginning to work together.

Finally, Senge suggests few principles to develop a shared vision: to favour personal visions, to go from personal visions to shared visions, and to extend shared visions. Nevertheless, according to Senge, it is very important to remind us that the development of a shared vision is actually only one piece of a larger activity, that is, to articulate the main ideas of the enterprise, its mission, and its core values. What do we want to expect in developing a shared vision in an organization? To this question, Senge and his colleagues are answering that we can apprehend new challenges for leaders, the momentum of previous successes, the ability to keep a fluid vision, and the alignment of the entire manpower (Senge et al., 1994).

Team Learning

The last of the five fundamental disciplines of a learning organization, team learning, is devoted to develop inside the organization a team intelligence which is greater than those of all its members and an extraordinary ability of concerted action. This learning discipline begins with the "dialogue", that is, the ability of its members to suspend their hypotheses and to orient them towards a "common thought". And it continues with the "discussion", the ability of its members to put forth a set of techniques (including collaborative reflection and investigation abilities) allowing to verify how the components of a given situation "fit" together as well as to develop a deeper understanding of the strengths working between all the team members themselves (Senge, 1990b; Senge et al., 1994). Team learning is vital, argues Senge, given teams, not individual, are the fundamental learning unit in contemporary organizations. This discipline is also essential to cope with both the paradox and the growing complexity of the world in which we are living, adds Lapointe (1998).

Team learning is related to align and develop the ability of a team to create the results that its members really want. It takes its foundations of systemic thinking, shared vision, and personal mastery. Senge thinks that the need to master team learning is greater today than ever before. First, individual learning, to some extent, is not relevant for organizational learning. Indeed, people continuously learn and this learning is not necessarily translated in organizational learning. Second, Kim (1993) argues that organizational learning is extremely more complex and dynamic than just a simplification of individual learning. Team learning therefore becomes an alternative not only very interesting, but also very effective, mentions Senge. When teams learn, they become a microcosm for learning throughout the organization (Senge, 1990b).

Team learning is axed on three critical dimensions of the organization: (1) the need to think positively concerning complex questions; (2) the need to generate a form of innovative and concerted action; and (3) the need to be conscious of the team members' role on other teams. It involves mastering very well the practices of dialogue and discussion, the two distinct ways from which the teams converse. Team learning also involves to learn how creatively manipulate the powerful strengths which are opposing them in the teamwork. In addition, it is essential to establish a balance between dialogue and discussion. In fact, in team learning, discussion is the necessary counterpart of dialogue. In a discussion decisions are taken while, in a dialogue, complex questions are explored (Senge, 1990b). In brief, the power of these two essential practices to team learning lives in their synergy. David Bohm developed an important theory on dialogue (see Bohm, 1990). Also, Edgar Schein and William Isaacs participated in the development of other theories on dialogue (see Isaacs, 1993; Schein, 1993).

On the other hand, on the contrary to what the popular myth leaves to believe, great teams are not characterized by a total absence of conflicts (Senge, 1990b). According to Senge's experience on the subject, one of the more reliable indicators of a team which is continually learning is the visible conflicts of ideas; in great teams, conflicts become productive. For more than twenty-five years, Chris Argyris and his colleagues have studied the dilemma of why bright and able managers often fail to learn effectively in management teams. Their works suggest that the difference between great teams and mediocre teams lies on how they face conflicts and deal with this aspect of defensive which invariably surrounds conflicts (Senge, 1990b). “We are programmed to create defensive routines and to cover them up with further defensive routines… This programming occurs early in life.” (Argyris, 1985; quoted in Senge, 1990b, p. 249) “We are the carriers of defensive routines, and organizations are the hosts. Once organizations have been infected, they too become carriers.” (Argyris, 1985; quoted in Senge, 1990b, p. 251) We will talking more about conflicts later since they are part of the content of the second concept we want to add in this paper to the Senge’s five disciplines to build learning organizations.

Finally, as all discipline, team learning requires practice. And, according to Senge, this is exactly what teams are lacking in contemporary organizations. But what is exactly practice? In his book *The Reflective Practitioner: How Professionals Think in Action*, Donald Schön identifies the fundamental principle of practice as being the experimentation in a “virtual world”. A virtual world is a “constructed representative of the real world” (Schön, 1983; quoted in Senge, 1990b, p. 258). In brief, the essence of a virtual world is the great freedom it allows for experimentation. On the other hand, as mentioned by Senge (1990b), because team abilities are more challenging to develop than individual abilities, learning teams therefore need “fields of practice”, in other words, ways to practice together such that these ones develop their collective learning abilities. To that end, two distinct fields of practice can be put forth: the first involves the practice of dialogue (the intellectual quotient (IQ) of a team can exceed those of its members) and the second involves the creation of “learning laboratories” and “micro-worlds” (different computer-supported environments in which team learning confronts the dynamics of numerous complex realities). The micro-worlds will prove, says Senge, to be a critical technology for the implementation of the five disciplines of the learning organization. And they will make this task in helping us to rediscover the power of learning through “game playing”. And Senge goes still more far when he argues that, in the long run, these micro-worlds will have a dramatic effect on both people and organizations; representation is an adaptation tool, whereas simulation is a creation tool.

The Notion of “Leadership” into the Learning Organization

First, this particular vision of the organization is considerably changing the nature of the ability of leader required to advance in this direction. Essentially, the leaders are those who build the new organization and its capabilities. They are those who “open the way”, whatever their management position or their hierarchical authority. Such ability of leader is therefore inevitably collective. Nevertheless, the emergence of a collective leadership approach does not mean that leaders’ positions, such as Chair and CEO, are all eliminated in the learning organizations. Management hierarchies are very often functional. On the other hand, there is a serious dilemma for learning organizations when collective leader and hierarchical leader meet. But this dilemma can also become a great source of energy and imagination through the idea of “leader/servant”, individual which guide since he/she has really chosen to serve two ideals: the others and a noble cause (Kofman & Senge, 1993). Indeed, in a traditional organization, Senge sees leaders as special people who set the direction, make key decisions, and energize the troops as deriving from a deeply individualistic and non-systemic worldview. And, in a learning organization, Senge sees leaders as *designers*, *stewards*, and *teachers*. They are responsible for *building organizations* were people continually expand their capabilities to understand complexity, clarify vision, and improve shared mental models -- that is, they are responsible for learning… Learning organizations will remain a "good idea" … until people take a stand for building such organizations. Taking this stand is the first act of leadership, the start of *inspiring* (literally "to breathe life into") the vision of the learning organization. (Senge, 1990b, p. 340)

As Schein says, "the ability of leader is directly linked to the culture formation. Building the culture of the organization and model its evolution is 'the unique and essential' leader's function" (Schein, 1985; quoted in Senge, 1990b, p. 10). In the learning organization, the three critical roles of leaders identified by Senge (designers, stewards, and teachers) have antecedents in the ways at which the latter have contributed in building organizations in the past. But, each role is taking a new sense in the learning organization and requires new abilities and new tools (Senge, 1990b). To summarize, leaders of learning organizations have to create and manage creative tension -- especially around the gap between vision and reality. Mastery of such tension allows for a fundamental shift. It enables the leader to see the truth in changing situations (Smith, 2001b).

Before going to the next section of the paper, it is extremely important to remind us it is vital that the five learning disciplines discussed above develop as a whole. This is, in our view, "the challenge" of building and practicing learning organizations in the sense that it is a lot more difficult to integrate new tools than to apply them separately. But Senge insists on the fact that benefits are immense. This is also why he is calling systemic thinking the fifth discipline. This is the discipline integrating all the others, merging them into a coherent whole of theory and practice. Nevertheless, it is evident that systemic thinking also needs the disciplines of personal mastery, mental models, shared vision, and team learning to realize its full potential. Finally, learning organization needs very special leaders *inspiring* the practice of all these disciplines not only inside, but also outside the organization. So, with the concept of knowledge generation and sharing, it is the second new concept we propose later in this paper in order to help actualize the learning organization theory and practice, and to perform a better management of the individual and organizational knowledge and the organizational behavior of people.

In the next section, we discuss about the organizational learning as an integral part of the learning organization.

ORGANIZATIONAL LEARNING

Peter Senge insists on the fact that human beings are *designed to learn*. Nobody has to teach a children walking or talking, or mastering the necessary spatial relations to pile up eight construction blocs such that they do not fall. Child comes completely doted of an insatiable need to explore and experiment. Senge argues that, unfortunately, primary educational institutions in our societies are predominantly oriented towards control instead of learning, rewarding people to perform for others instead of to cultivate their natural curiosity and impulsivity to learn. Young child which is entering to school discovers very rapidly that "the name of the game" is to get the good answer and to avoid errors (Senge, 1990a). "Our actual management system has destroyed our people. People are born with intrinsic motivation, self-esteem, dignity, curiosity for learning, fun for learning. The strengths of destruction come when children begin to walk -- a prize for the best Halloween costume, grades at school, gold medals, and so on until university. At work, people, teams, divisions are classified -- reward for the first, punishment for the last [the stick and the carrot]." (Deming, 1986; quoted in Senge, 1990a, p. 7)

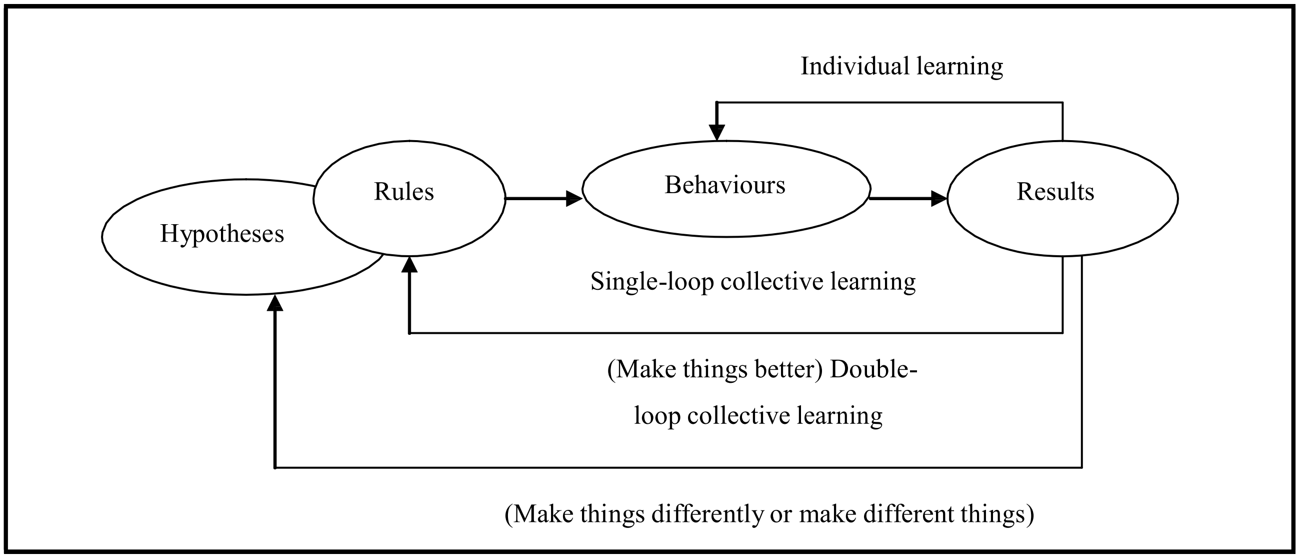
Ironically, in focusing on performance as basis for all approval, organizations have created the true conditions which predestine them to a mediocre performance. In the long run, a superior performance depends on a superior learning. The impulsion to learn is an impulsion to generate, to expand our capabilities (Senge, 1990a). We must recognize that our dominant mental model is that knowledge is something people get and possess. But knowledge involves understanding, the understanding of meanings. Business knowledge involves understanding of goals and guidelines, opportunities and operations, threats and constraints, strengths and weaknesses, policies and practices, reasons and rationales, as well as their interrelations (Mitra & Gupta, 2008). Knowledge represents a coordinated set of information: rules of business, imposed by human being or nature, either explicitly stated or implied (Mitra & Gupta, 2008). Knowledge must address both what one should do and what one should not, as well as how to do it and how not to do it (Mitra & Gupta, 2008). Knowledge possesses structure. And knowledge sharing occurs when people are truly interested in helping someone else to develop new abilities of action (Senge, 1998). Indeed, Karl Weick puts the emphasis on the fact that organizational learning must be governed by a theory of action (Weick, 1969; quoted in Tsang, 1997, p. 81).

Each enterprise hoping to be successful in the difficult business environment of the 1990s [and a lot more difficult in the 2010s, as we can see actually], says Argyris, must resolve first a basic dilemma: success in the market depends more and more on learning, although most of people do not really know how to learn (Argyris, 1991). McGill and Slocum Jr. (1993) report that the Zoo of San Diego, Home Depot, Sony, 3M, Wal-Mart, Heinz, Southwest Airlines, Levi Strauss, Motorola, and Honda all have showed that their primary competitive advantage occurs in their ability to *learn*. Schein (1993) indicates that organizational learning is not possible unless some learning take place first in the executive subculture. The primary managers' responsibility in a learning organization is then to create and sustain a climate favouring learning. Slocum Jr. et al. (1995) add that, in the learning organization, failures are seen as being useful steps to help managers to get new experience, perspicacity, and knowledge which can be applicable to products, technologies, and future markets. In brief, successful organizations are actually characterized by their strategic determination to learn, their involvement to continued experimentation, and their attentiveness to learn from their experiences, whether they are failures or success.

In order to improve these problems related to organizational learning and thus helping people and organizations to examine and change theories and hypotheses underlying their actions, some authors suggest double-loop learning (Argyris & Schön, 1978; Argyris, 1990; Argyris, 1991) and learning "III" (pronounced learning three) (Bateson, 1972) or triple-loop learning, as Isaacs (1993) is calling it. To position the reader, we are in a *single-loop learning* mode (or adaptive learning) when we are looking at an object from a unique perspective and that we adapt ourselves to the work to perform. This form of learning does not require a vision and it has a rather utilitarian character (e.g., originating from outside us). We are in a *double-loop learning* mode (or generative learning) when we look at an object from multiple perspectives, we are continuously learning, we are improving our creative potential, and we are developing our abilities to reach our objectives. This form of learning absolutely requires a vision and it has a sacred character (e.g., originating from inside us). However, it is to be noted that the notions of "adaptive learning" and "generative learning" may be assimilated to single-loop learning or double-loop learning using some nuances. Finally, we are in a *triple-loop learning* mode (or transforming and creative learning) when we are answering the two following questions: What is driving me and others to be predisposed to learn in this way? Why these objectives? Triple-loop learning keep place to investigation inside the "why" which are underlying it. This is the learning offering a preview of the nature of the paradigm itself and not only an estimation of the reason for which the paradigm is superior. This type of learning can have a transforming and creative effect on peoples' life in organizations. But it is important here to mention that very few people can reach triple-loop learning.

In the same order of ideas, Swieringa and Wierdsma (1992) see the learning organization as a set of both implicit and explicit rules which orient the behavior of all its members. Their view of the learning process into the learning organization is depicted in Figure 1. So we strongly suggest the adoption of this learning process into the learning organizations. We also propose some avenues to generate, manage, and share the knowledge created into this learning process in a subsequent section (see the knowledge generation and sharing sub-section).

Figure 1. A View of the Learning Process into the Learning Organization (adapted from Swieringa & Wierdsma, 1992).


Individual learning
Rules
Behaviours
Results
Hypotheses
Single-loop collective learning
(Make things better) Double-
loop collective learning
(Make things differently or make different things)

As shown in Figure 1, as long as behaviors provide desired results, change in rules is not necessary: individual learning is enough. Nevertheless, this type of individual learning may be not sufficient to guarantee the organizational success. In the moving and complex environment we are facing today, old ways of doing may fail to produce desired results and the organization may be confronted to the need of change, to modify the rules of the game, and to encourage new behaviors in order to insure its competitiveness and survival. Modifying the rules of the game then requires collective learning and, by the way, Argyris and Schön's theory on single-loop and double-loop learning. Single-loop learning induces the detection and correction of errors driving to the modification of the rules. It involves that the members of an organization refine their mental models regarding their conception of the world to make things better. Double-loop learning appears when hypotheses are examined and challenged. This type of learning can provide a new understanding of situations and events which, in turn, can conduct to the adoption of new rules requiring of the members of the organization to make things differently or to make different things.

In the next section of the paper, we critically discuss about the learning organization such as imagined and developed by Peter Senge and his colleagues.

A CRITICAL VIEW OF THE LEARNING ORGANIZATION

The reader will have now assuredly noted that the literature on learning organization is rather centered on a restricted group of researchers. Indeed, although few other researchers have been interested until now in the learning organization approach, for example we can find some special issues in the journal *The Learning Organization* (Emerald Group Publishing Limited) on different aspects of the learning organization, such as complexity and learning for management, systems thinking and systems dynamics, communities of practice, facilitating organizational learning and knowledge management (KM), semantics and organizational learning, leadership and the learning organization, from the learning organization to the leading organization, and from the learning organization to the wise organization, research (both theory and practice) on this domain is performed, to a large extent, by a team of researchers leaded by Peter Senge at the Centre for Organizational Learning of MIT, a Learning Centre formed by a consortium of medium-large sized companies such as mentioned earlier. In the whole, research results until now are covering numerous aspects of the learning organization and they are well-presented and interesting, but they also have some gaps, especially at the level of the results found by other researchers not affiliated to the Learning Centre leaded by Senge. Effectively, we are confronted to a serious lack of understanding of the learning organization as such and the theory which is underlying this particular type of organization, as well as most of time only partial application of this complex approach within the enterprises. More specifically, following are some important gaps we have identified.

First, several works praise the merits of companies asserting to have become learning organizations, while they mention having obtained substantial gains of productivity, revenue… As for us, we strongly believe that, with the exception of the Centre for Organizational Learning at MIT and the other organizations where Senge is acting as consultant, very few organizations until now can praise themselves to be on the road of becoming "true" learning organizations. Indeed, most of the organizations put into practice rules, principles, and values of at more one or two disciplines (the more often only one) identified by Senge and they preach to have become learning organizations.

For example, the Open University who says having decided to put into practice the theory that it knows on the learning organization in launching a program called New Directions which consists to organize workshops and conferences meeting personal and students, workshops and conferences having the goal to develop a shared vision of the objectives and mission of the institution. Thus, when we take a closer look at Russell & Parson's (1996) paper describing this experience we can rapidly see that only one discipline is put into practice, that is, the creation of a shared vision inside the institution.

Another relevant example to express our thought is the following. In this case, Hebard (1998) is telling the success story of the Savings Bank of Utica to become a learning organization in organizing sessions called Why Antagonize Valuable Employees (WAVE) grouping together representatives of all hierarchical levels of the bank and having the objective to develop a new vision and new values. Sandra Wilczynski, Co-chair of human resources, gives all the credit to these WAVE sessions and their efforts in cultural change for a substantial sales growth, an improvement in operational effectiveness, an improvement in productivity, as well as a greater knowledge and skilfulness of employees. Here again we can see that only one discipline (shared vision) is put into practice and only sporadically when it is time of the WAVE sessions, which is, in our view, very far from the Senge's vision of a learning organization.

Graham et al. (1998), them, are telling us a real "fairy tale" regarding the success of setting up interest groups in a community of practice at Anderson Consulting Education. Nevertheless, these authors do not put the emphasis on the fact that it is still a committee which supervises all this practice and that no member can communicate something to others which is not verified and accepted at first by the supervising committee of the community of practice. Moreover, there are, curiously, two directors and a member of this committee who are telling us this fabulous story (it is not at their advantage to say that what they try to do is not working well). In brief, when we have read the paper, it has been relatively easy for us to see that it is still our old management system (planning, organizing, and controlling) that is put into practice at Anderson Consulting Education, but skilfully disguised by the practice of some new learning principles and the notion of learning organization.

More recently, in a paper titled Insurance Sector Dynamics: Towards Transformation into Learning Organization, Barkur et al. (2007) tell us that they use a system dynamics approach to study the influence of five critical factors on service quality in the insurance sector. The authors argue that the outcome of this study can be directly implemented in the insurance sector to enhance the quality of service, as it provides a means to convert the tacit knowledge into an explicit form. They also indicate that a knowledge management system, as a component of the learning organization, acts as a central repository of organizational knowledge and enables the service providers to minimize the “service quality gap” as best practices, past experience, and solutions to problems of common occurrence will be available for common use. So it is very clear in our mind that the fact to use a knowledge management system, as a component of the learning organization, is still very far from the transformation into learning organization. The knowledge management system is just one component of the learning organization, and not the learning organization as such. There is an enormous difference! To become a learning organization, we have to implement the five disciplines identified by Peter Senge and all of their concepts within the organization. It is not forbidden to add new components or concepts to the five disciplines proposed by Senge to become a learning organization (it is what we are doing in the next and last section of this paper; we add the concepts of knowledge generation and sharing, and organizational behavior) if these new components or concepts have the power to improve the functioning of this particular type of organization, but we must at least having all what is suggested by Senge.

In a more recent paper titled From Learning Organization to Practically Wise Organization, Rowley and Gibbs (2008) attempt to extend the theory and practice associated with the learning organization and organizational learning in order to embrace the multi-stakeholder, ethically, and morally informed perspectives embedded in the notion of “practical wisdom”. So we strongly applaud the effort of these authors to extend the learning organization theory and practice. The new concept they are bringing here seems to us very interesting to put the learning organization one step forward. But, before extending the learning organization, it is crucial to make sure that the organizations involved are first practicing the five disciplines associated with the learning organization as well as their concepts or components. It is the basis!

Finally, in a still more recent paper, Ameli and Kayes (2011) report the results of a case study made with the DC Central Kitchen (DCCK) partnership with for-profit and governmental entities. In their findings, the authors argue that, at the organizational level, DCCK was a learning organization because the principal variables -- culture, strategy, shared vision, and knowledge management -- were focused on learning. Here again it is easy to see that the five disciplines of the learning organization, such as proposed by Senge, are not all exploited, but rather only some concepts associated to these disciplines. It is not in our own here to criticize the results of this case study. No, the results seem to be very interesting! It is rather in our own to criticize the fact that very often it is argued in the related literature that the five disciplines suggested by Senge to form a learning organization are all exploited into an organization, while it is not the case. There is the big problem!

To this effect, Bak (2012), among others, is supporting our assertions while, in a study exploring a department in a UK higher education institute based on Senge’s five characteristics of the learning organizations, the findings clearly show that the learning organizations disciplines were present only to a limited extent. In fact, within the department, the results showed a variation in the impact level of the five characteristics between administrative and academic groups, as well as the new and old staff members.

One cannot improvise oneself a learning organization from one day to another. Effectively, becoming a learning organisation, according to us, is a long term process which is absolutely asking to practice the five disciplines suggested by Senge in a coherent whole, practice which should be pursued lifelong. So we think that organizations the more likely to become “true” learning organizations until now are not-for-profit organizations such as Alcoholic Anonymous. These types of organizations already have a social infrastructure of learning (they continuously learn in parallel with people who need help), their mission is not related, first and above all, to enhance financial results, but rather to understand and help individuals who need it. And the expression "information is power" has absolutely no importance for these very special types of organizations, comparatively to institutions, enterprises, and for-profit organizations. But it is also completely possible for these latter types of organizations to become learning organizations. It is just a matter of investing the necessary efforts in that sense, we think.

In all of the studies related to learning organizations we have examined the authors are merely questioning senior managers to measure a successful learning organization whereas, in our view, it is essential to question people at all levels of the organization, from executants to top managers, to get a good overall view of the situation. In fact, this process is similar to those of the BPR wave in the first half of 1990s, while merely senior managers were questioned to measure the success or failure of BPR projects. So we strongly think that this way of doing has the effect to bias the results of the studies towards "success". Then it would have been important to question different people from all hierarchical levels of the enterprise to get a faithful and reliable representation of the situation. For example, in education, when we want to verify the success or failure of a new teaching and learning approach, we do not just question professors, but also the more concerned actors: students. It has been the same thing after the BPR wave with downsizing, rightsizing, and all the other forms of restructuring the enterprise. It seems very evident to us that most of the senior managers of an enterprise will not talk a lot about a restructuring failure. Consequently, we remain convinced that, if researchers had questioned different people from all levels of the enterprises studied, they would assuredly got different results in their studies.

We have to pay attention to do not fall into a dictatorship mode using such an approach as those of learning organization. Effectively, we can see in the literature that the authors provide very few comments to this effect, although some between them are risking telling some words, but words that are hidden under the cover of any other idea. As for us, after the reading of several existing works, we sincerely think that it is the case. And the "fairy tale" told by Graham et al. (1998) previously is a relevant example. In addition, we have discussed about this aspect for some times in a doctoral course on learning organization taught by professor Jean-Jacques Lapointe (see Lapointe, 1998) to the first author of this paper and, according to the examples provided by the professor and his two colleagues, we concluded that it is effectively the case. Thus, under the cover of this approach, it might be easier for senior managers to propose the adoption "at large" within the organization of a vision, a mission, mental models, rules, principles, and values that are just their prerogative. Also, we must not be afraid to talk about this important aspect in future works in order to increase the awareness of senior managers to do not use the learning organization approach as vehicle of their dictatorship.

We have mentioned earlier that, for becoming a learning organization, the organization and all of its members must well-understand what to put into practice in everyday life, but also "how" doing it. According to our observations in the literature, it is not at all the case actually. There is still a lot of work to do in this direction. For example, systemic thinking is an extremely difficult discipline to understand, master, and put into practice. It is not for nothing that Peter Senge considers this discipline so important that he is referencing it as the "cornerstone" of the five disciplines. On the other hand, most of organizations have a great difficulty to establish links and to understand systemic thinking. As a result, they choose the easier option to apply only some of its principles which they understand more easily and which they accept. Nevertheless, in order that a discipline knows success, it must be understood, accepted, initiated, and sustained from the part of all members of the organization. We sincerely think that it is not the case actually with systemic thinking and probably not the case too with all the other disciplines underlying the learning organization. So we have still a lot of work to do to put into practice the five disciplines in our organizations such that they become "true" learning organizations.

We will still be going more far while we argue that, not only organizations do not master very well the five disciplines of the learning organizations, but they are also “afraid” to learn mastering them. It seems that the majority of organizations are convinced that we can become a learning organization from one day to another and that we can get the full benefits immediately. They put into practice some rules, principles, and values related to one or two disciplines easier to integrate and then think they are now became learning organizations. Becoming a learning organization is like all other thing: we have to learn it and we have to invest a lot of time and efforts. It becomes therefore crucial to always keep this in mind and also the fact that it is a process which will bring benefits only in the long run and not in the short run, as most organizations seem to be convinced. Bohm’s theory of dialogue discussed previously and suggested by Cayer (1993) as basic discipline seems to us a very interesting alternative for the members of an organization who want to learn mastering and practicing together the five disciplines underlying the learning organization. On the other hand, most of the works treating of this particular approach are rather prescriptive, that is, they provide the readers with guidelines on the way to build a learning organization. Therefore, it would be important for the authors who are very interested in this approach to take their pencil and to publish some descriptive works explaining, on the basis of solid theoretical foundations, what is “really” a learning organization. And after some time, when we will begin to see appearing “true” learning organizations, then researchers will also begin to conduct studies into these “true” learning organizations to determine the “real” benefits we can get if we are adhering very seriously to such an approach.

Of course, several authors are now working to test some concepts of the five disciplines of the learning organization, or to add some new concepts to the five disciplines underlying the learning organization, or to establish links between some new concepts and those integrated into the five disciplines of the learning organization. Let us examine a few examples. Weldy (2009) is saying that any relationship between the learning organization and transfer of training could lead to performance improvements and maximize the benefits gained, and enable organizations to remain competitive in the face of global competition, a constantly changing environment, and unstable economic conditions. Ng (2009) shows that using new science metaphors in the field of the learning organization can enrich the understanding and practice of learning organizations. Cabanero-Johnson and Berge (2009) remind us the importance of the concept of “micro-worlds” in a corporate learning organization. According to them, the possibilities for learning inherent in these virtual worlds (virtual simulations, and so on) seem limitless in a knowledge-driven, global society hungry for the next creative and innovative way of transforming the world, real or virtual. Fisser and Browaeys (2010) argue that, to cope with highly dynamic environments, management should reconsider traditional ways of thinking. And teams as networks of learning are a valuable corporate asset that an organization needs to foster when aiming to survive. Grandy and Holton (2010), them, tested the concept of “appreciative inquiry” in a business school. These authors report that the experiential nature of the appreciative inquiry process was a success in promoting inquiry and dialogue, encouraging collaboration and team building, and empowering individuals towards a collective vision. Through an iterative process, four possibility statements were developed: meaningful relationships with professors and peers; leadership opportunities; experiential learning, as well as creativity and flexibility in program design. As for Bui and Baruch (2010), the latter develop a conceptual framework for the analysis of antecedents and outcomes of Senge’s five disciplines and offer moderators to explain the prospect associations, using a multi-level analysis to explore issues, from the individual level (personal mastery) through the collective level (team learning and mental model) up to the organizational level (shared vision and systems thinking). So the development of this model manifests wide areas of relevance to the learning organization and points out significant interdependences and interactions among the various constructs associated with Peter Senge’s five disciplines of the learning organization. Finally, Velazquez et al. (2011) debate how organizations may better become a sustainable learning organization by offering the most used and insightful concepts of sustainability. In fact, through a literature review, the authors explore and compare learning organization and sustainability perspectives, and note that learning sustainability experiences around the world have provided tools and mechanisms to organizations to enhance economic growth without affecting environment and communities.

To conclude, excluding the fact that it seems to be extremely difficult to build "true" learning organizations, we sincerely think that this approach, if well-understood and well-applied, is unique and extremely interesting to implement within contemporary and future organizations, and which can assuredly provide them with very significant positive results, as much at the personal level (for example, a better quality of the relations, of the life in general, and of the work) as at the productivity level (for example, more effective working methods without necessarily providing more efforts on the part of the personal). And this is still a lot more true given we have now global organizations managed quite differently, that is, integrating global collaboration between people and enterprises and the use of social media (e.g., Facebook, Twitter, LinkedIn…), among others. Consequently, we strongly encourage organizations to persevere in that sense, but in putting a much greater emphasis on the understanding of the five core disciplines underlying the learning organization and on the ways to put into practice these five disciplines as a whole in everyday life. In this way, we think that the benefits will be there and incommensurable!

In the next and last section of the paper, we propose the addition of two new concepts to the Senge's five core disciplines of the learning organization.

THE ADDITION OF TWO NEW CONCEPTS TO THE SENGE'S FIVE CORE DISCIPLINES OF THE LEARNING ORGANIZATION

In this last section of the paper, once organizations are becoming learning organizations, that is, the five disciplines underlying this approach are to be implemented and put into practice within the organization, we then suggest the addition of two new concepts which we think will help to actualize the learning organization theory and practice, as well as to perform a better management of the individual and organizational knowledge and the organizational behavior of people: knowledge generation and sharing, and organizational behavior.

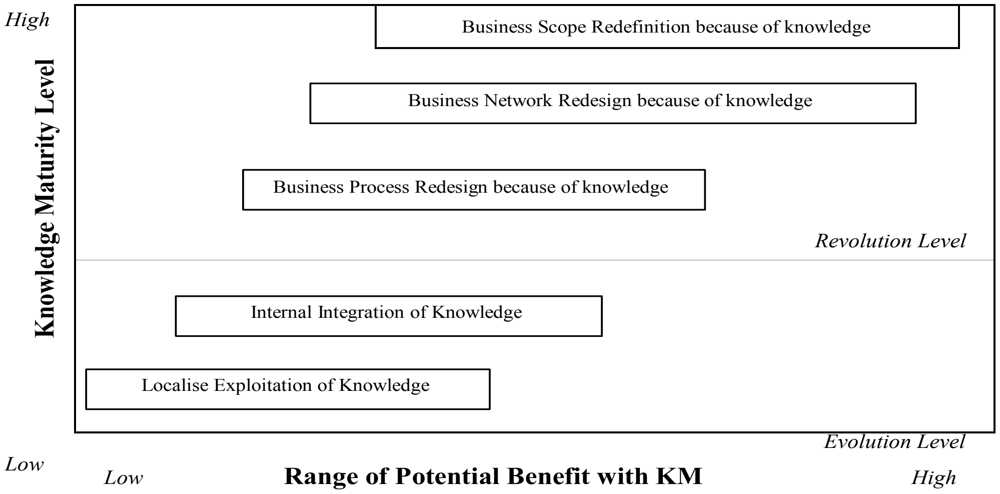
Knowledge Generation and Sharing -- Knowledge Management (KM) Capabilities and Organizational Learning Maturity

The concept of organizational capability is widely defined as a skill to carry out the deployment, combination, and coordination of resources and competences through various value flows in order to put forth strategic objectives (Grant, 1991; Amit & Shoemaker, 1993; Colis & Montgomery, 1995; Ordóñez de Pablos & Lytras, 2008). It is in the strategic approach of the resource-based theory that the concept of organizational capability is better explained given this theory refers to the means that the organization dispose and which are necessary to perform the transformation of inputs into outputs in developing the specific organizational capabilities (Grant, 1991; Amit & Shoemaker, 1993; Teece et al., 1997). In this context, the organizational capability is referenced to the strategic application of organizational competences, their use, and their deployment in order to achieve the business goals, on the one hand, and to the firm abilities to assemble, integrate, and deploy the value resources combined with other organizational resources to reach the business performance, on the other hand (Bharadwaj, 2000; Peppert & Ward, 2004; Ordóñez de Pablos & Lytras, 2008). This position reinforces those of the literature supporting the fact that what is bringing the difference in the organizational performance is the way at which the organization learns and manages the activities of its internal resources and not the control of its technical aspects or the market (Barney, 1991; Peppert & Ward, 2004). This is why Amit and Shoemaker (1993) argue that the key capabilities, by definition, require strategic visions, time of development, as well as substantial investments. This would explain the partial success reached by some organizations which do not base their business strategies on the diversification of resources, but rather on the observation and the valorization of the internal resources and capabilities (Dierick et al., 1989).

The development of the internal capabilities, as a learning process, in accordance with the business objectives is more and more perceived as the only way to gain the sustainable competitive advantage and to support the business performance (Peppert & Ward, 2004). Indeed, the establishment of the strategy requires the development of capabilities which will support the achievement of the goals formulated by the organization. To that end, the new business strategies should be closely linked to the way at which the organization develops, enriches, and uses its knowledge in relation with the business objectives, the strategies of each organizational resource, the business operations, and the resource operations. In the same way, the literature clearly shows that knowledge is one of the strategic organizational resources likely to support organizational learning, to provide a sustainable competitive advantage, and to promote the business performance (Barney, 1991). But knowledge management (KM) is also a difficult task to perform and it requires the development of specific organizational capabilities with a specific maturity learning process (Peppert & Ward, 2004; St-Amant & Renard, 2004).

Thus, in order to better determine the link between organizational learning and the concept of KM capabilities, it is important to know the maturity level that an organization can reach in its learning process. For this reason, the link between KM capabilities and organizational learning must follow some guiding principles. First, the KM capabilities is a process of organizational learning and knowledge accumulation throughout the time and which can be spread out in several stages of a maturity model (Cyert & March, 1963; Nelson & Winter, 1982; Burgelman, 1988). Second, the KM capabilities is seen as a whole of skills to develop by the leader or the manager with the aim to guarantee, in combination with the other organizational resources, the deployment and the effective use of knowledge (Stevenson, 1976; Quinn, 1996; Roberts, 1990). Third, the KM capabilities is a strategic planning which requires the strategic specific skills to KM in order to guarantee the strategic positioning of the organization to the assistance or by a good organizational KM that facilitates and supports organizational learning (Miles & Snow, 1978; Porter, 1985; Abernathy & Utterback, 1988). Thus, taking into account some existing maturity models (Venkatraman, 1994; Dekleva & Drehmer, 2001; Luftman et al., 2004; Peppert & Ward, 2004; St-Amant & Renard, 2004), we propose in this paper a KM capabilities maturity model which we think will be very useful to the learning organization. This five maturity levels model explains how an organization could develop specific capabilities in a learning process from individual and local knowledge sharing to integrated knowledge sharing within organization and partners. The model is depicted in Figure 2.

Figure 2. The Maturity Levels of the Organizations Using Knowledge Management (adapted from Venkatraman, 1994).


High
Knowledge Maturity Level
Business Scope Redefinition because of knowledge
Business Network Redesign because of knowledge
Business Process Redesign because of knowledge
Revolution Level
Internal Integration of Knowledge
Localise Exploitation of Knowledge
Evolution Level
Low
Low
Range of Potential Benefit with KM
High

In fact, Figure 2 proposes a KM capabilities maturity model (KMCMM) that can reach an organization by a learning process. This model recommends five maturity levels reached or which an organization using KM can reach. The model considers that, when the maturity level of KM capabilities in an organization is low, the awaited benefits are also low, while more the maturity level of KM capabilities is high, more the awaited benefits would be also high. We can see on the model in Figure 2 that the maturity levels of KM capabilities in an organization are divided into two main categories: first, the evolution levels (level 1: localised exploitation, and level 2: internal integration); and second, the revolution levels (level 3: reengineering, level 4: networks redesign, and level 5: redefinition of the business mission).

Thus, the concept of KM capabilities for organizational learning is defined in the present work as being a whole of knowledge infrastructures, knowledge processes, and knowledge skills to perform the deployment and the effective use of a knowledge strategy in combination and coordination with the other organizational resources in order to support or contribute directly to the business performance via an organizational learning process (Grant, 1991; Amit & Shoemaker, 1993; Zollo & Winter, 2002). This is why we can retain some starting postulates for understanding the organizational learning process. First, KM capabilities require specific knowledge infrastructures which represent the whole KM capabilities, including information technologies (IT) which support the knowledge activities, the KM cultural, including the organizational system of reward and incentive policies. Second, the development of the KMCMM is tributary to the union of KM capabilities to knowledge processes: knowledge generation, knowledge mobilization, and knowledge application. Third, the development of the KMCMM requires that the whole KM capabilities be specific to knowledge skills: technical, organizational, and human. And last, the development of the KMCMM can be observed only through a KM capabilities maturity model.

Finally, according to us, the following four propositions must be part of the discussion: (1) the development of the specific capabilities to the knowledge infrastructures determines the organizational maturity in KM. So the definition and integration of new business and knowledge strategies are tributary of the technological infrastructures capabilities available to the organization. These infrastructures relate to IT infrastructures and the knowledge management systems (KMS) available or to be acquired. In fact, without adequate technological infrastructures and being able to support the establishment of new business and knowledge strategies, it would be difficult to reach the expected organizational performance via a good organizational learning process; (2) the development of the specific capabilities to the knowledge processes determines the organizational maturity in KM. Indeed, the development of the specific capabilities to the knowledge processes includes three principal categories: processes of knowledge generation, processes of knowledge mobilization, and processes of knowledge application (Davenport & Prusak, 1998; Abou-Zeid, 2003); (3) the development of the specific capabilities to the knowledge skills determines the organizational maturity in KM. In this way, the knowledge skills include the characteristics of knowledge processes which reflect the nature of the necessary competences to carry out them (Abou-Zeid, 2003); and (4), so that an organization controls its learning process, it should also control the organizational changes by a good management of the organizational behavior with respect to the challenges which the learning using such a good KM launches us. So it is the goal of the second new concept we propose to integrate to Senge's five core disciplines of the learning organization in the following sub-sections.

Organizational Behavior

One of the older ways of learning is called behavioral change and it draws its foundation on the operational conditioning theory or reinforcement theory. The reinforcement theory developed by the psychologist Burrhus Skinner (see Skinner, 1965) is founded on the principle that behavior is governed by the environment and it is function of its consequences. We therefore learn to modify our behaviors according to the responses of the environment to our actions. The concept of behavioral change is formed of four types of reinforcement. Thus, the organizational learning can occur by positive reinforcement, negative reinforcement, punishment, or extinction.

Vicarious Learning

According to the socio-cognitive theory, learning can occur by observing attentively the behaviors of a model while the individual is performing a specific task; by selecting and memorizing the important elements of the observed behaviors; by putting these behaviors into practice; by being motivated to reproduce (or avoid) the observed behaviors; by working on his/her feeling of personal effectiveness and by acting on our own behavior (self-regulation). This is what we call vicarious learning (Schnake, 1986; Trevino, 1992).

Experiential Learning

The human being can also learn by experience and by action (Gherardi et al., 1998). This approach has been conceptualized in several ways. But, one of the more known way is the Kolb's 1984 model which represent experiential learning as a four steps cyclic process. The concrete experience is the learning resulting from a full sensorial and emotional involvement of an individual in an activity. This involvement is followed by a reflected observation where listening, observation, memorization and extrapolation of the lived experience prevail. The following step is the abstract conceptualization, step at which we develop concepts and we integrate them into logical theories. At the last step of the process, the active experimentation, we then test our previous experience, our reflection, and our conceptualization in a specific context. For Kolb (1984), experiential learning will be assuredly working better into a learning organization. To do that, the leader must recognize the fact that each individual possesses a different learning style and must cultivate this difference within the organization. He/she must also favor the formation of teamwork, to reward the results not only in terms of performance but also to encourage the different learning processes, to allow time to learn, to keep in mind the collective experiences, and to be tolerant to the error when people experiment (McShane & Benabou, 2013). It is important to note here that the organizations themselves can be the object and source of learning in putting the emphasis on the intellectual capital (Stewart, 1997) that is the whole human capital (the knowledge diversities, competences, and expertise), the structural capital (all the knowledge which an organization can manage by its structures and systems), as well as the relational capital (the values added by the relations between the organization and its key players).

How to Concretely Put this Learning into Practice Using Some Elements of the Organizational Behavior?

The actual millennium is indubitably a turn into the domain of organizational behavior. The organizations, their managers, and their employees are facing two uncertain, complex, and turbulent environments: the immediate environment, called the business environment, and the global environment, a context in which the organizations are navigating (Dolan et al., 2011; Nohria & Khurana, 2012). These environments are formed of strengths and tendencies which represent challenges for all those interested in the organizational behavior at the levels of performance, ethic and social responsibility, values, and needs of workers issued of different generations. The managers must know, not only recognize these challenges, but also find responses to the problematic that these phenomenon are raising for the different actors within the organization (Schermerhorn et al., 2014). To do that, the contemporary and future organizations must be learning organizations. The approach of learning organization is related to the organized dimension of learning, where not only the individual knowledge is interesting the researchers (Wenger, 1998), but also the organizational one in a more strategic vision of its development (Lemay et al., 2012). The know-how of the leadership is perceived as one of the organizational determinants of individual learning (Huber, 1991; Tseng, 2010; Schein, 1995; Gherardi & Nicolini, 2002; Fernandez et al., 2010) with a strategic questioning on the practices and the ability to detect and face the possible behaviors defending the statute quo (Argyris, 2003) or of the absorption of the new knowledge (Sun, 2010). As pointed out by Lemay et al. (2012), it is not only a matter of resolving the problems (Weick, 2006), but also a matter of wondering on the accuracy or relevance of the ways to act and think.

This brings the leader to adopt the dimensions of organizational behavior which represents a multidisciplinary domain allowing to better understand, to describe, to explain, and to predict the behaviors of individuals and groups within the organizations, the interpersonal processes, as well as the organizational dynamics in order to improve both its effectiveness and the professional satisfaction of its employees (Schermerhorn et al., 2014). To do that, the complexity and the unpredictability of the environment in which the leader must navigate bring these one to know how to manage in the uncertainty. In brief, he/she must know his/her internal and external environment, to know how to manage the uncertainty.

Innovation must be understood as a process during which the organization creates and defines the problems, as well as develops the new knowledge to resolve them (Nonaka, 1994). The two questions that arise from this definition are, on the one hand, the nature of the knowledge created and, on the other hand, the mode of creation, or more widely, the learning mode of this knowledge. For Adizes (1979), the best mean to develop the aptitudes to undertake and integrate is to decentralize the responsibilities by creating participative systems. Indeed, the more the members of an organization participate to the decision process, the more their aptitudes to undertake and integrate are developed: “Never mastering team learning has been so necessary as today”. Team learning is vital, while teams, and not individuals alone, are the fundamental learning units within the contemporary and future organizations, and at least that a team can learn, the organization cannot learn, according to Peter Senge. But, how to reach it? The following elements provide some responses to this question.

Personality

Once the leader is knowing his/her environment, he/she must ask himself/herself the question who he/she is, since to know himself/herself is a fundamental element of an effective leadership. This is only from this time that he/she knows his/her group of collaborators. Thus, this knowledge bring himself/herself to the personality which, according to Morin and Aube (2007), is an essential element for those who want to understand the attitudes and behaviors governing human beings within organizations. To understand the personality is helping the managers to take advantage of the individual differences in order to facilitate both the collective and individual work to favor the development of competences and organizational learning to reach the organizational effectiveness and efficiency, and the improvement in the performance (Schermerhorn et al., 2014). The individuals distinguish themselves by their personality since they are the unique products of the genetic and the environment who fashioned them. Our personality brings us to build and to perceive the world in a way specific to each of us. The type of social exchanges who can be developed between two individuals is partially depending on the individual dispositions and personality traits.

Emotions and Mood

The more prosper organizations have understood an important thing: to be capable of facing transformations and upheavals who are imposed to them by their internal and external environments, they must pay much attention to emotions and mood of their human resources. Once they took into account the individual characteristics of the diversity of their human resources in order to recognize the needs and preoccupations of the employees, the organizations must ask themselves the following question: what are the foundations of the emotions and mood which characterize the employees and how they intervene? Emotions give color to the life, since the affective state of an individual comes to tinge his/her life. There is a range of emotions, sometimes pleasant as the joy that can brighten our days, create a better team spirit, and contribute to establish a good mood at work, which brings a high satisfaction at work, and sometimes unpleasant as the sadness or the fear that are capable to bring us into a total despair. Nevertheless, to live too much durable and excessive negative emotions can conduct the individual to insecurity and to fall into a state of anxiety. And this phenomenon is extremely costly for the organizations. So, to understand the concepts of emotions and anxiety at work, while referencing the variables which are related to them such as the emotional intelligence and work, must then interest the leader.

Emotional Intelligence

Some studies are reporting that the emotional intelligence, a set of faculties, aptitudes, and competencies meaning the ability of an individual to see and understand the emotional indices and to manage the information they carry (Goleman, 1995), is really essential to a learning organization. The defenders of emotional intelligence argue that an individual can have an exceptional formation, a strongly analytical spirit, an impressive vision of the future, and having continually a number of inspired ideas, without to be a great leader if no emotional intelligence (Champy, 2003).

Perception

We briefly discussed previously about personality and individual differences who bring managers and organizations to adopt behaviors driving to effectiveness and efficiency. Nevertheless, the evaluation we make of the attitudes and behaviors is deeply intertwined with our self-perception, our perception of the others, of the different situations, and of all that is surrounding us. So, personality, beliefs, values, attitudes, and grants must be taken into account given they intervene into the perceptive process, while they influence the assessment of the reality. And this appreciation is conditioning the organizational learning. For example, when an employee find his/her superior or a colleague authoritarian, why we do imagine a set of stereotypic behaviors without asking ourselves whether the judgement of the employee raises not only of his/her way to perceive the other?

Motivation

The baby-boomers are gradually leaving the workplace. The rhythm of work imposed by the organizations is not at all helping their desire to retire at 65 years. Knowledge transfer, greater rarity of the human resources, numerous are the challenges awaiting the managers of the contemporary and future organizations. Continually preoccupied by the problematic of effectiveness of the human resources within the enterprises, the managers have a great interest for the motivation process, this energy allowing individuals to realise exceptional performances which are more and more rare actually. The motivation to go to the action presuppose a certain agreement between the goals of the individual and the possibilities perceived in terms of spheres of activity opened by both the environmental resources and the individual. But, how are we coming up to this agreement? How the individual is coming to give to his/her action an intensity, a direction, and a persistence in order to help a patient to heal when his/her work environment is demanding to him/her more than 60 hours of work per week?

Teamwork

According to a Gallup survey research (see Robbins et al., 2006), 55% of the workers (and probably a few more today) would not have any enthusiasm in their work. Unfortunately, the distribution of the work involving several individuals, set up with a lot of goodwill, became just a simple juxtaposition of workers and not a real organization of a team with its dynamic, its cohesion, and a synergy which are making its true value. According to Phaneuf et al. (2008), "These teams have often been composed without previous analysis and formed randomly according to the applying which are coming, to the available positions, and to the replacements", and most of the time, they are born from the chaos. The learning organization must not put the emphasis on the formation of work groups, but rather on the "teams" which allow to their members an adequate personal and professional development.

Leadership

Whether it is in the health sector, in the spiritual, political, financial, sportive, scientific, or cultural spheres, we want all to be surrounded by these individuals who traces the way to follow, who have a vision, who inspires, and who incites to the passing of oneself. Nevertheless, all the leaders are not sharing the same motivations and are not exercising the same influence on the individuals surrounding them; reasons why the concept of leadership raises always today the researchers' attention although this phenomenon is a subject of study who dates back from the era of the Greek philosophers (McShane & Benabou, 2013). The exercise of the leadership is a complex and multidimensional phenomenon.

Communication

In the contemporary organizations, new organizational structures are replacing the old who no longer respond to the transformations and the democratic issues faced by the enterprises. The new values, the new expectations in terms of manpower, the new needs regarding different generations, the globalization, and so on, bring managers and employees to possess excellent communication competences and, when needed, to develop new communication abilities as much as at the oral level than at the writing one. Today, more than ever, the communications occur in varied contexts, with different internal and external collaborators, collaborators of the same or diverse cultures. Hence, the manager must continually adapt himself/herself not only to the communication media, but also to the individuals and situations. Besides, it is this capacity of adaptation who will make the manager a good leader and a good communicator. Communication is an essential function for the effectiveness and the success as much as of the manager than the employees and the enterprise.

Conflict

There is frequently ill-feelings or bad situations which degenerate in a temporary or permanent conflict between the members of a group or an organization. Hence, several people are immediately thinking that conflicts automatically decrease the performance of the group or the organization. Imagination and false beliefs, the conflict will be, depending on the case, either constructive or destructive. It is more and more recognized today that the conflict is a natural phenomenon who is part of the everyday life of the organizations given that the daily work of all individual who is working for is based on communication and interpersonal relations. It has been recognized that interpersonal conflicts are less numerous within the groups where a frank communication has been established and in which the information circulates freely (Schermerhorn et al., 2014). But, in the case where we face an optimal conflict, sufficiency and apathy will be reduced and motivation will take advantage of a stimulating and favorable to the reflection environment, with a vitality that will reinforce the work interest (Robbins et al., 2006). What advice can we provide to a manager facing an excessive conflict? As there is no miracle solution, the conflict resolution will be based on the choice of a strategy oscillating between collaboration and avoidance.

Power

Although there are numerous components having either a negative or a positive effect on the activities of the human beings within the organizations, power represents an essential factor which cannot be underestimated by those who are searching to understand the functioning of the organizations. Within any group or organization, power is a natural process and, as so well said by Gosling and Mintzberg (2003), it is at our reach. Nevertheless, if we really want to understand the organizational behavior, it is important to know what the power is in the facts, who possess it, how to get it, and how to exercise it? In taking into account these few words of Lord Acton saying that “If power corrupts, absolute power absolutely corrupts”, much people tend to think that power is harmful for the organizations. Then we consider those possessing it and being powerful within organizations as dominating and bad, and those who are not possessing it as dominated victims. But, in the facts, it would not be the case. Power, this capacity which has an individual to influence other individuals, to incite them to take decisions and to put them into practice, to accomplish tasks, to get resources according to his/her desires, must rather bring those who possess it to make use of this ability in a productive manner (McShane & Benabou, 2013; Schermerhorn et al., 2014).

Anxiety

Lazarus (1993) argues that adaptation is a dynamic process based, on the one hand, on the way that the individual evaluates an event and reacts to it and, on the other hand, on the changes that occur during this same event. Morin and Aube (2007) said that adaptation is not a static phenomenon, but rather a dynamic one. The adaptation strategies are governed by the principle of balance which today, in front of the upheavals marking our era in general, is no longer considered as a state of stability towards which tend the systems, but as an ideal state, unstable, made of oscillations and constant movements which provoke the anxiety.

CONCLUSION

In this paper, first, we discussed about the learning organization and the organizational learning, second, we brought a critical view of the learning organization, such as proposed by Senge, and third, we proposed the addition of two new concepts (e.g., knowledge generation and sharing, as well as organizational behavior) to those integrated into the Peter Senge’s five fundamental disciplines of the learning organization (systems thinking, personal mastery, mental models, shared vision, and team learning) in order to help actualize the learning organization theory and practice, and to perform a better management of the individual and organizational knowledge and the organizational behavior of people within the enterprises. Does our goal to enhance the learning organization theory and practice, the knowledge management, and the organizational behavior of people within the enterprises reached? We hope so! On the other hand, as we have seen in the examples we provided previously in this paper of organizations trying to integrate some of the five core disciplines of the learning organization suggested by Senge into their daily activities, it is not very easy to do that. But we sincerely think that this approach, if well-understood and well-integrated, is unique and extremely interesting to implement within contemporary and future organizations, and which can assuredly provide them with significant positive results, as much at the personal level (for example, a better quality of the relations, of the life in general, and of the work) as at the productivity level (for example, more effective working methods without necessarily providing more efforts on the part of the personal). And this is still a lot more true given we have now global organizations managed quite differently, that is, integrating global collaboration between people and enterprises and the use of social media (Facebook, Twitter, LinkedIn…), among others. Consequently, we end the paper by strongly encourage organizations to persevere in that sense, but by putting a greater emphasis on the understanding of the five core disciplines underlying the learning organization and on the ways to put into practice these five disciplines as a whole in everyday life. In addition, we also encourage enterprises to add the two new concepts we suggest in this paper to these five fundamental disciplines. In this way, we sincerely think that organizations will get incommensurable benefits in the long run!

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AN EXAMINATION OF WORK ATTITUDES OF PUBLIC SECTOR EMPLOYEES

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ABSTRACT

This study examined differences in organizational commitment type and job satisfaction for a sample of 154 public sector employees consisting of firefighters (N = 52), police officers (N = 57), and utility district employees (N = 45) in a large southeastern metropolitan area. Firefighters were significantly more satisfied with their jobs than were both police officers and utility district employees. Significant differences were found for moral and alienative commitment forms. Firefighters expressed significantly higher moral commitment and significantly lower alienative commitment than did the police officers and the utility district employees. There were no significant differences between police officers and utility district employees. The three groups did not differ significantly on calculative commitment.

INTRODUCTION

Lee and Olshfski (2002) argue that commitment to the organization reinforces the role that an individual has taken in the community and serves as a source of motivation. Given the importance of police, fire, and utility district workers to a community, maintaining a stable workforce with a positive attitude toward their work would be in the public interest. In more pragmatic terms, having public employees who are committed to their organizations and satisfied with their jobs could result in reduced turnover, lower absenteeism, greater productivity, and ultimately lower costs to the public. The purpose of this study was to test for differences in levels of job satisfaction and three types of organizational commitment for a sample of police officers, firefighters, and public utility district employees in a large southeastern city.

JOB SATISFACTION

Job satisfaction is one of the most studied variables in the behavioral management literature. Job satisfaction is a global attitude that individuals maintain about their jobs based on perceptions of their jobs (Reilly, Chatham & Caldwell, 1991). Job satisfaction has also been defined as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Locke, 1976, p. 1300). Thus, job satisfaction represents an expression of one’s overall sense of satisfaction – or dissatisfaction – with a job. Studying job satisfaction aids in the understanding of individuals’ perceptions about their jobs, and the ultimate consequences of those perceptions for an organization (DeBats, 1982; Smith, Kendall & Hulin, 1969; Weiss, Dawis, England & Lofquist, 1967).

Much attention has been given to the relationship between organizational commitment and job satisfaction, and findings from this study may be useful in developing a deeper understanding of public sector employees. There have been several studies that questioned the causal ordering of organizational commitment and job satisfaction (e.g., Bateman & Strasser, 1984; Williams & Hazer, 1986; Curry, Wakefield, Price & Mueller, 1986; Glisson & Durick, 1988; Huang & Hsiao, 2007). In a meta- analysis, Tett and Meyer (1993) reported that satisfaction and commitment contribute uniquely to turnover. Kacmar, Carlson, and Brymer (1999) found that the relationship between job satisfaction and organizational commitment was positive and statistically significant. However, Kacmar et al. (1999) reported that the links for affiliation, exchange, and identification commitment with job satisfaction were not significant. Whereas, Huang and Hsiao (2007) suggested that a reciprocal model explained the relationship.

Golden and Veiga (2008) found that high quality superior subordinate relationships lead to higher levels of commitment and job satisfaction and performance for those who worked extensively in a virtual mode. In another study of the relationship between job attitudes and performance, Riketta (2008) confirmed the existence of a small but significant effect for attitudes (such as job satisfaction) on performance. Previous research reported a positive relationship between substitutes for leadership and job satisfaction (e.g., Pool, 1997; Jernigan, 1990). One study found that public sector employees had lower levels of job satisfaction than private sector employees (Tortia, 2008), and another study reported a strong influence on job satisfaction for affective forms of organization commitment (Markovits, Davis & Van Dick, 2007).

ORGANIZATIONAL COMMITMENT

While researchers have varied in their emphasis, most suggest that commitment represents both an attitude that describes an individual's linkage to the organization and a set of behaviors by which individuals manifest that link. Researchers have examined a wide range of issues important to the understanding of organizational commitment such as job satisfaction (Bateman & Strasser, 1984; Vandenberg & Lance, 1992), intention to leave the organization (Lee & Mitchell, 1991; Jaros, Jermier, Koehler & Sincich, 1993; Cohen, 1993), the influence of personal characteristics on dimensions of organizational commitment (Abdulla & Shaw, 1999), intrinsic motivation and affective commitment (Eby, Freeman, Rush & Lance, 1999), bases and foci of commitment (Clugston, Howell & Dorfman, 2000), and the dimensionality of commitment (Penley & Gould, 1988; Allen & Meyer, 1990; Meyer, Allen & Smith, 1993; Jaros, et. al., 1993).

Goulet and Frank (2002) compared public, non-profit, and for-profit employees and found that public employees expressed the lowest levels of organizational commitment. McElroy, Morrow, and Wardlow (1999) reported significant effects for career stage on affective, continuance, and career stage commitment in a study of police officers. Jaramillo, Nixon, and Sams (2005) reported that job satisfaction and other work-related factors were predictors of organizational commitment. In a study of British police officers, Metcalfe and Dick (2000) reported that the level of organizational commitment varied with hierarchical position and that organizational commitment increased with tenure on the force.

Emphasis on outsourcing, downsizing, and rightsizing strategies to adapt to more competitive environments caused some researchers to question the value of organizational commitment as a theoretical construct (see Baruch, 1998). From a strategic point-of-view, the value of these strategies for managers is decreased operating costs and/or increased productivity. These strategies are used not only in private enterprise but are also used by public sector administrators to stretch budgets to cover services. Baruch (1998) argues the cost to the organization of such actions can include a decline in employee organizational commitment. The genesis of Baruch's position is a belief that the traditional employment relationship, particularly in the United States, no longer exists. Because employees believe their employer is no longer committed to them, they have no reason to be committed to the organization.

Mowday (1998) countered that organizational commitment remains an important and desirable attitude for organizations. Mowday contends the evidence shows high commitment human resource practices produce high levels of affective commitment and subsequent organizational performance (p. 7). Mowday's position is partially supported by Whitner (2001) whose results suggest high commitment human resource practices affect the relationship between perceived organizational support and organizational commitment or trust in management. On an intuitive basis, there is some logic to Baruch's argument. However, Baruch does not take into account the possibility that changes in the traditional employment relationship may alter the nature of the individual's commitment to the organization rather than leading to the absence of organizational commitment.

The multidimensionality of organizational commitment is widely accepted and well established (e.g., Etzioni, 1961; Kanter, 1968; Penley & Gould, 1988; Allen & Meyer, 1990; Meyer, Allen & Smith, 1993; Jaros, Jermier, Koehler & Sincich, 1993; Meyer & Allen, 1997). Several studies used the model of commitment developed by Meyer and Allen (1997) that identifies three components of commitment – affective, continuance, and normative. Affective commitment "…refers to the employee's attachment to, identification with, and involvement in the organization." Continuance commitment "…refers to an awareness of the costs associated with leaving the organization." Normative commitment "…reflects a feeling of obligation to continue employment (p. 11)." According to Meyer and Allen, "Employees with a strong affective commitment continue employment with an organization because they want to do so. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. Employees with a high level of normative commitment feel they ought to remain with the organization (p. 11)."

The model of commitment developed by Penley and Gould (1988) takes a slightly different approach from the Meyer and Allen model. Based on Etzioni's (1961) multiform conceptualization of organizational involvement, Penley and Gould endorse that an individual's commitment to an organization exists in both affective and instrumental forms. One can be morally committed, calculatively committed, or alienatively committed to an organization. Moral commitment is described as a highly positive affective form characterized by acceptance of and identification with organizational goals. Calculative commitment is an instrumental form essentially focused on one's satisfaction with the exchange relationship. Alienative commitment is described as a highly negative affective form that is a consequence of a lack of control over the

Internal organizational environment and perceived absence of alternative for organizational commitment. Employees who express alienative commitment continue to engage in work behaviors that indicate a desire to continue their membership in the organization. In essence, they ensure their work performance at least meets minimal standards, and their interaction with managers and co-workers communicates that they do not want to leave.

Conceptually, Penley and Gould's (1988) moral and calculative commitment seem similar to affective and continuance commitment as defined by Meyer and Allen. However, alienative commitment does not appear to be conceptually similar to any of the forms of commitment described by Meyer and Allen (1997). As defined by Penley and Gould, alienative commitment suggests an external locus of control, a sense of powerlessness on the part of the employee, and a lower level of engagement in the work role. These are individuals who stay with an organization because they have to, not because they feel any sense of obligation to the organization. As described by Etzioni (1961), alienative commitment is an attitude reflecting the individuals' perception of sunk costs. Thus, alienative commitment would appear to be distinct from normative commitment as defined by Meyer and Allen.

The Penley and Gould model seems appropriate for a study of public sector employees. Public sector organizations are often stereotyped as highly bureaucratic organizations where promotions and pay raises are usually slow in coming and based on seniority. The highly bureaucratic environment may produce a feeling of powerlessness among individual employees. In addition, the frequent criticism of the public sector by the media, politicians, and community groups could add to a sense of alienation either in terms of sunk costs or in a sense of "separation" from the larger community. The result may be a lower sense of commitment. Powerlessness is important because it may lead to job dissatisfaction, burnout, and lower commitment (Ross & Wright, 1998; Wilson & Laschinger, 1994; Chandler, 1986; Bush, 1988). Penley and Gould's alienative commitment may measure powerlessness as well as sunk costs better than other models of commitment.

This paper focused on a single research question. Do firefighters, police officers, and utility district employees express significantly different job satisfaction, moral, calculative, and alienative organizational commitment?

METHOD

Setting, Sample, and Procedure

This study was conducted in a southeastern metropolitan area. Police officers employed in the investigations bureau and in a patrol district were invited to participate in the study. With the support of supervisors in each division, questionnaires were distributed to 60 police officers in their work setting. With the support of the Fire Department Chief, surveys were distributed directly to a sample of 65 firefighters. With the support of the Director of the metropolitan area utility district, surveys were distributed to a sample of 50 employees. The utility district was the principal supplier of water and sewer service in the metropolitan area and faced competition from several private water and sewer companies in the region. The police and fire departments were the largest in the area and offered the most attractive compensation and benefits packages in the region. The fire department was the only fulltime, non-volunteer department in the county. Prior to distributing surveys, the researcher explained the purpose of the study and assured the confidentiality of the responses. Completed surveys were returned to the researcher in a sealed envelope.

Survey Instrumentation

Commitment was measured using the Organizational Commitment Scale (OCS) developed by Penley and Gould (1988). The OCS is a 15 item seven-point Likert scale that measures organizational commitment on three dimensions: moral, calculative, and alienative. All three dimensions of commitment are measured using subscales consisting of five items. A sample moral commitment item is: “I feel it is my duty to support this organization.” A sample calculative commitment item is: “I will give my best when I know it will be seen by the ‘right’ people in this organization.” A sample alienative commitment item is: “I feel trapped here.” Coefficient alphas for the three sub-scales were moral commitment, .81; alienative commitment, .75; and calculative commitment, .66. Penley and Gould (1988) reported coefficient alphas of .80 (moral), .82 (alienative), and .67 (calculative).

The following demographic information was solicited for each participating police officer: current job (patrol officer, investigator, or supervisor), age, number of years in the current job, number of years as a police officer, marital status, work shift (first, second, or third), and education. The following demographic information was collected from each firefighter: current job title (firefighter, engineer, captain), age, number of years in the current job, number of years as a firefighter, marital status, and education. The shift question was eliminated for firefighters because all worked the same schedule. Utility district employees were asked to provide demographic information similar to firefighters except job titles differed.

Job satisfaction was measured using the Index of Job Satisfaction developed by Brayfield and Rothe (Cook, Hepworth, Wall & Warr, 1981). The index consisted of eighteen items of which half were reverse scored (alpha = .87). Originally formulated with a 5 point agree-disagree scale, the index was modified to a 7-point (very strongly agree to very strongly disagree) scale in order to make it consistent with the other measures employed in this study. Sample items from the index include: “My job is like a hobby to me,” “I am often bored with my job” (R), and “I find real enjoyment in my work.”

Analysis

Basic relationships were first examined using correlation analysis. T-tests were used to test for differences in organizational commitment and job satisfaction between police officers, firefighters, and utility district employees. For analysis purposes, the supervisory personnel who responded to the survey were included in the group that they supervised. We felt this approach was justifiable since the supervisors performed “regular” duties in addition to their supervisory responsibilities.

RESULT

Demographic data are summarized in Tables 1A, 1B, and 1C. The average police officer in this survey was 35 years old, had 11.46 years of experience in the department, had 6 years experience in their current job, 71.9 percent of police officers were married, 61.4 percent worked first shift, and 54 percent were college graduates. The average firefighter was 33 years old, had 11.41 years of experience as a firefighter, and 5.8 years of experience in their current job, 74 percent were married, and 28 percent were college graduates. The average utility district employee was 39 years old, had 9 years of experience in the industry, 5 years of experience in their current job, 56 percent were married, and 58 percent were college graduates. The largest percentage of utility district employees worked in the laboratory and wastewater treatment departments.

Correlations for the total sample and each subsample are reported in Table 2, 2A, 2B, and 2C. For the total population, the results indicate a small positive and significant correlation between job satisfaction and moral commitment (r = .164, p = .044) and between job satisfaction and calculative commitment (r = .162, p = .05). The correlation between job satisfaction and alienative commitment was not significant. The results also showed a negative correlation for moral and alienative commitment (r = -.61, p = .000), a positive correlation between moral and calculative commitment (r = .194, p = .018), and no significant correlation between calculative and alienative commitment. Examination of the correlation results for the subsamples showed no significant correlations between job satisfaction and any commitment type for police officers and firefighters. However, there was a significant correlation between job satisfaction and calculative commitment for the utility district workers (r = .302, p = .055).

Table 3 reports the mean scores for job satisfaction and each type of commitment for firefighters, police officers, and utility district employees. T-test analysis show that there were significant differences between firefighters and police officers for moral commitment (t = 5.832, p = .000) and alienative commitment (t = -5.725, p = .000). Firefighters expressed higher moral commitment than police officers, and police officers expressed higher alienative commitment than firefighters. A similar pattern of results were found where firefighters and utility district employees were compared. Firefighters reported significantly higher moral commitment (t = 4.797, p = .000) and significantly lower alienative commitment (t = -4.086, p = .000) than utility workers. No significant differences were found when police officers and utility district employees were compared on moral and alienative commitment. No significant differences for any comparisons of firefighters, police officers, and utility district employees were found for calculative commitment.

Examination of the T-test analysis for job satisfaction show that there were significant differences in reported job satisfaction between firefighters and police officers (t = -2.718, p = .008) and between firefighters and utility district employees (t = 2.411, p = .018). In both instances firefighters reported higher job satisfaction than either police officers or utility district workers reported. There were no significant results when police officers and utility district workers were compared.

DISCUSSION AND CONCLUSION

Both job satisfaction and organizational commitment have many favorable outcomes for all organizations. These include better attendance records, longer job tenure, and higher performance levels. As Dessler (1999) points out, "…there is considerable evidence that committed employees will be more valuable employees than those with weak commitment (p. 58)." This study suggests that there may be vocational differences in job satisfaction and organizational commitment types that are worth examining.

On one hand, the results for the correlation are consistent with studies of private sector employees that found those who are more satisfied are also more committed to the organization. On the other hand, our results are inconsistent with McElroy et al. (1999) who reported a significant relationship between job satisfaction and commitment for police officers. We found no such relationship for police officers. However, we did find a positive and significant relationship between job satisfaction and both moral (affective) and calculative commitment for the total sample. Our results indicate that people satisfied with their jobs are also more likely to be both morally and calculatively committed to their organizations. We also found a significant positive relationship between moral and calculative commitment that is consistent with Penley and Gould (1988). If in fact the two forms of commitment, moral and calculative, operate together, there may be both theoretical and managerial implications. In the case of moral commitment, job satisfaction may lead to a greater acceptance of organizational goals and values or possibly a manifestation of organizational fit. The relationship between job satisfaction and calculative commitment for utility district employees may be an indicator of the extent to which one's exchange expectations have been met on psychological contracts.

Why do firefighters express higher moral commitment than police officers? Possible answers include the public and professional perception of the firefighting profession and the specific nature of the work of firefighters. Firefighters are generally seen by the public as helpers. The media characterizations of the firefighting profession are usually positive, and media attention on the police seems more negative. The fire department comes to your house to either save the building or to save your life. However, when the police department comes to your house, there is generally something bad that has happened. The police may be there to give you bad news or to take you into custody.

The nature of firefighting work could play a role in firefighters being more morally committed than police officers. Firefighters work in relatively stable teams with 24 hour work schedules. Therefore, members of a firefighting team spend significant amounts of time together and should be more likely to establish strong interpersonal bonds as well as a strong organizational/professional identity. It has long been accepted in the teamwork literature that commitment increases with the level of interaction and involvement. In addition, although not tested in this study, individual expectations about the job and the organization may be better met for firefighters than for police officers. The extent to which one's expectations about the job and the organization are met, the more likely one is to develop a positive organizational commitment (Lee & Mitchell, 1999). Dessler (1999) argues that organizations that have high commitment screen new employees for attitudes that are consistent with company values. The extensive screening process that is part of the hiring process for fire and police departments may result in a larger percentage of employees who are predisposed to the values of the organization and are consequently more likely to express a higher degree of positive types of organizational commitment.

Why do police officers express higher alienative commitment than their fire department counterparts? Possible answers include the way in which police work is often done. Frequently, one officer works alone in a patrol car or as an investigator while firefighters work together in teams or crews. Another answer may be the higher education requirements for police officers than for firefighters. Most urban police departments now require a minimum of a bachelor's degree, and this requirement may create higher individual expectations in economic and professional terms that may not be met. For the most part, fire departments do not have the same educational requirements for entry into the profession.

Are police officers morally committed to their departments? Our results suggest that they are morally committed, but less than firefighters are. Differences in public perceptions of the two groups, differences in the nature of the work they do, and differences in education levels may explain the variance in moral commitment between the two groups. The results of this study showed significant differences between police officers and firefighters on two of the three forms of commitment examined. The group differences on moral and alienative commitment are relatively small in magnitude. This may mean that while statistically significant and important from a theoretical perspective; in practical terms, the differences may be less important.

Why do firefighters express higher moral commitment than utility district employees? For utility district employees a combination of public perception and sunk costs may provide some explanation. For example, working at the sewer plant may not be the most desirable or most appreciated job in a community. Additionally, many utility district employees' jobs may involve repetitive testing and analysis which could be perceived as boring. Sunk costs may provide an explanation for higher alienative commitment among utility district employees. Many utility district jobs require extensive training and professional certification. Individuals may feel that having made such investments, they are now "stuck" because of "overspecialization," and as a consequence, their skills are not transferable. They stay because they can see no viable alternatives to their current circumstances.

There are several limitations to this study. The study is cross sectional and is subject to all the limitations associated such studies. An examination of organizational commitment over time might yield very different results. The small sample size (52 firefighters, 57 police officers, and 45 utility district employees) limits the study. The police officer sample was drawn from a single investigations bureau and only included officers from one shift in a single patrol district. We surveyed fulltime, professional firefighters, and volunteer firefighters were excluded. We did not survey employees of private utility companies in the region. Finally police officers and firefighters working in suburban communities were not included in this study.

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Table 1A **DESCRIPTIVE STATISTICS: POLICE SAMPLE**	
Mean Age	35
Years in Current Job	6.04
Years a Police Officer	11.46
Married	71.9%
Single	22.8%
Divorced	1.8%
Separated	1.8%
Work First Shift	61.4%
Work Second Shift	28.1%
Work Third Shift	7%
High School Graduate	15.8%
Associate Degree	28.1%
Bachelors Degree	50.9%
Masters or Higher	3.5%
Age 25 or Less	7%
Age 26 to 30	14%
Age 31 to 35	33.3%
Age 36 to 40	15.8%
Age 41 or Older	21.1%

Table 1B **DESCRIPTIVE STATISTICS: FIREFIGHTER SAMPLE**	
Mean Age	33.5
Years in Current Job	5.83
Years a Firefighter	11.42
Married	74.5%
Single	19.6%
Divorced	2.0%
Separated	3.9%
Firefighter	66.0%
Engineer	28.0%
Captain	6.0%
High School Graduate	48.0%
Associate Degree	24.0%
Bachelors Degree	28.0%
Age 25 or Less	12.5%
Age 26 to 30	10.4%
Age 31 to 35	31.3%
Age 36 to 40	27.1%
Age 41 or Older	18.8%

Table 1C **DESCRIPTIVE STATISTICS: UTILITY SAMPLE**	
Mean Age	39.3
Years in Current Job	5.15
Years in Industry	9.13
Married	56.3%
Single	16.7%
Divorced	8.3%
Water Treatment Employee	12.5%
Laboratory Employee	35.4%
Wastewater Treatment	22.9%
System Protection	10.4
High School Graduate	14.6%
Associate Degree	14.6%
Bachelors Degree	47.9%
Masters or Higher	10.4%
Age 25 or Less	6.3%
Age 26 to 30	4.2%
Age 31 to 35	20.8%
Age 36 to 40	8.3%
Age 41 or Older	29.2%

Table 2
CORRELATIONS (TOTAL SAMPLE)

		Job Satisfaction	Moral Commitment	Alienative Commitment	Calculative Commitment
Job Satisfaction	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	151			
Moral Commitment	Pearson Correlation	.164(*)	1		
	Sig. (2-tailed)	.044			
	N	151	153		
Alienative Commitment	Pearson Correlation	-.042	-.610(**)	1	
	Sig. (2-tailed)	.605	.000		
	N	151	153	153	1
Calculative Commitment	Pearson Correlation	.162(*)	.194(*)	-.104	
	Sig. (2-tailed)	.050	.018	.212	
	N	146	147	147	147

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Table 2A
CORRELATIONS (POLICE SAMPLE)

		Job Satisfaction	Moral Commitment	Alienative Commitment	Calculative Commitment
Job Satisfaction	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	57			
Moral Commitment	Pearson Correlation	.118	1		
	Sig. (2-tailed)	.380			
	N	57			
Alienative Commitment	Pearson Correlation	.046	-.650(**)	1	
	Sig. (2-tailed)	.731	.000		
	N	57	57	57	
Calculative Commitment	Pearson Correlation	.081	.309(*)	-.266(*)	1
	Sig. (2-tailed)	.553	.020	.048	
	N	56	56	56	56

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 2B
CORRELATIONS (FIREFIGHTER SAMPLE)

		Job Satisfaction	Moral Commitment	Alienative Commitment	Calculative Commitment
Job Satisfaction	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	50			
Moral Commitment	Pearson Correlation	-.058	1		
	Sig. (2-tailed)	.687			
	N	50	52		
Alienative Commitment	Pearson Correlation	.104	-.378(**)	1	
	Sig. (2-tailed)	.473	.006		
	N	50	52	52	
Calculative Commitment	Pearson Correlation	.098	.113	.263	1
	Sig. (2-tailed)	.501	.433	.065	
	N	49	50	50	50

** Correlation is significant at the 0.01 level (2-tailed).

Table 2C
CORRELATIONS (UTILITY SAMPLE)

		Job Satisfaction	Moral Commitment	Alienative Commitment	Calculative Commitment
Job Satisfaction	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	44			
Moral Commitment	Pearson Correlation	.120	1		
	Sig. (2-tailed)	.436			
	N	44	44		
Alienative Commitment	Pearson Correlation	.031	-.446(**)	1	
	Sig. (2-tailed)	.844	.002		
	N	44	44	44	
Calculative Commitment	Pearson Correlation	.302(*)	.134	-.183	1
	Sig. (2-tailed)	.055	.404	.253	
	N	41	41	41	41

** Correlation is significant at the 0.01 level (2-tailed).

Table 3
JOB SATISFACTION AND COMMITMENT TYPE COMPARISON FOR FIREFIGHTERS, POLICE OFFICERS, AND UTILITY DISTRICT EMPLOYEES

Moral Commitment	Number	Mean	T-Test Results
Firefighters Police Officers	52 57	4.2846 3.5719	t = 5.823 p = .000**
Firefighters Utility Employees	52 45	4.2846 3.6455	t = 4.797 p = .000**
Police Officers Utility Employees	57 44	3.5719 3.6455	t = -.475 p = .636
Alienative Commitment			
Firefighters Police Officers	52 57	1.7192 2.5404	t = -5.725 p = .000**
Firefighters Utility Employees	52 44	1.7192 2.3000	t = -4.086 p = .000**
Police Officers Utility Employee	57 44	2.5404 2.3000	t = 1.403 p = .164
Calculative Commitment			
Firefighters Police Officers	50 56	3.0480 2.8893	t = .938 p = .350
Firefighters Utility Employees	50 41	3.0480 3.0634	t = -.083 p = .934
Police Officers Utility Employees	57 44	2.8893 3.0634	t = -1.071 p = .287
Job Satisfaction			
Firefighters Police Officers	52 57	2.8511 2.7368	t = -2.718 p = .008**
Firefighters Utility Employees	50 44	2.8511 2.7260	t = 2.411 p = .018**
Police Officers Utility Employees	57 44	2.7368 2.7260	t = -.227 p = .821

** Significant at the 0.01 level (2-tailed).