MELDING TEAM ROLES AND LEADER ROLES INTO ONE SKILLS DEVELOPMENT PROGRAM

Janice A. Black, Ph. D.
Associate Professor
Department of Management
Wall College of Business
Coastal Carolina University
843-349-5012
janblack@coastal.edu

Darla Domke-Damonte, Ph. D.
Professor
Department of Management
Wall College of Business
Coastal Carolina University
843-349-2129
ddamonte@coastal.edu

&

J. Kay Keels, Ph. D.
Associate Professor
Department of Management
Wall College of Business
Coastal Carolina University
843-349-2688
jkeels@coastal.edu

Abstract

Teamwork is widely employed in upper-level business courses as a way to accomplish large-scale projects while developing effective team skills that are thought to be important in the students' future work settings. Good teamwork requires the development of leadership skills and effective team member skills. This paper discusses a way to provide both leadership skill development and practice in developing effective team role skills concurrently. We detail the skills involved in both leader and team member roles in the context of an undergraduate Strategic Management class. We conclude with a report of the resulting quality of the team level deliverables.

MELDING TEAM ROLES AND LEADER ROLES INTO ONE SKILLS DEVELOPMENT PROGRAM

Team-based work is still widely used by United States firms [51]. However, firms faced with a hypercompetitive environment must act aggressively [14]. Such an environment does not allow firms the freedom to build effective and efficient work teams and leaders gradually. Furthermore, this type of environment also requires effective manager-leaders.

Work teams have uneven skill sets especially in team roles since they may have members with seniorities that range from a few months to many years [37]. By definition, novices have not yet acquired the tacit knowledge of how to perform effectively and efficiently [34]. However, experientially gained knowledge is often parochial and very context specific. Thus, even when put into situations that require teamwork and/or leadership, individuals may not acquire a sufficient understanding to move beyond a novice level. It is a mistake to assume that even team members who are professionals will know how to behave ethically within a team [17] let alone to expect that novices will understand how to play effective team interpersonal roles [37]. In fact, there is a recognized growing need for more leader development [16].

This recognition suggests that for individuals to acquire a good base of ethically rooted team behaviors and leadership behaviors, they need to be taught such behaviors and/or allowed to discover and practice them in an optimal learning environment [22]. Thus, it is not sufficient simply to put people into teams or even to engage in team building activities and expect good teamwork processes to happen. Indeed, individuals must be taught ethical team member behavior explicitly. Similarly, it is not sufficient merely to expose people to good leadership behaviors; people must be given opportunities to practice those behaviors themselves [22][34]. Finally, an explicit understanding of individual team roles has been shown to be a value added dimension when striving for higher team performance levels [37]. We conclude that there is a need to have training methods designed to develop positive and appropriate team and leadership behavior quickly.

When we can develop both an individual's leadership or managerial skill set and effective team skills through the same set of experiences, we decrease the amount of time required to prepare individuals for team membership and leadership. This paper discusses a way to provide leadership skill development and practice while developing an understanding of effective teams simultaneously. Our paper begins with role definitions for both leaders and team members. We then describe an integrated set of roles, which enables the development of both the team member and leader skills previously discussed. Next, we describe several contextual requirements for high performance for teams and leadership skill growth. Our focus then turns to the learning context, which is detailed sufficiently to be duplicated in either a training environment or an academic environment. We conclude with a report of these processes and their results at the team level.

ROLE DEFINITIONS AND PROCESS ISSUES

A role can be considered as an expected set of behaviors during an interaction with others [31][46]. Roles are referenced in the research on leaders and managers [4][40] as well as the research on teams [8][38]. Skillful role portrayal is a requirement of team action taking [31] and performance [45]. However, not all roles are equally important for performance [53].

A good approach is to focus initially on the most important roles whether they be leader roles [52] or team member roles [51]. It is important to recognize that differing perceptions of roles and expectations about those roles can impact the results of enacting those roles [19]. The timing of role assignment also may affect team performance [37]. Those caveats aside, we now turn to defining the roles used in this study.

Leadership Skills

Over the years researchers have examined a wide range of activities and behaviors of leaders and managers. In 1991, over 65 separately developed systems existed [24]. These different systems can classified as either task-focused or people-focused. Indeed, at that coarse level, we have confirmation that both task-focused and people-focused behaviors are critical for successful teams [11]. However, contemporary teamwork is not only focused on accomplishing today's tasks well, it is also concerned with improvement and innovation to determine future tasks that will need to be accomplished. It seems that increasingly teams are being asked to

solve problems that simply cannot be anticipated [20]. This observation suggests that focusing on innovation and creativity is also a needed class of leader behaviors. Thus, when choosing a set of leader roles upon which to focus, we can see that it needs to be comprehensive and include elements of innovation. One such comprehensive categorization of leader behaviors can be found in the competing values framework [6][12].

In the competing values framework, leaders are considered master managers if they possess high levels of skills in eight roles which require the ability to switch between foci. These roles are producer, director, coordinator, monitor, facilitator, mentor, innovator and broker. Each of these roles has associated behaviors and collectively they enable leaders to think differently about value creation, clarify purpose, integrate practices and lead people [12]. Each of these roles and their associated behaviors will next be described.

Producer According to Quinn and his colleagues [40], as a producer, a leader is expected to know how and be able to work productively, effectively and efficiently at a designated work task. The leader in a producer role can manage time and stress that arises during task accomplishment.

Director The director role of a leader [40] is a task-oriented role that requires a manager to decide the direction of the organization and to design the organization in a way that enables the pursuit of that goal. This role includes on the ability to plan how to accomplish the work flow at a macro level as well as the ability to organize people, including appropriate delegation.

Coordinator As a coordinator [40], a leader must understand the various functions found within a company and be able to manage across these functions. This requirement also encompasses the ability to discern the tasks needed to accomplish each part of the work while acting as a director and designing an effective task flow. It also means being able to manage all aspects of a project from task sequences, to required resources, to needed skills sets and to identification of those who possess the required skill sets. It, thus, requires that the coordinator be able to access , manage and employ the resources required to complete the project.

Monitor The monitor role [40] requires that a leader understand organizational performance criteria and be able to manage these organizational performance components when they conflict. It also means that the leader must understand team-level performance criteria and what is needed to meet those performance goals. Thus, this role includes monitoring the performance levels at a personal level.

Facilitator A facilitator [40] knows how to help teams form and become effective. One specific tool that is used by a facilitator is participative decision making so that individuals can understand goals and recognize how their efforts enable the achievement of personal, team and organizational goals. A facilitator is also responsible for controlling the level conflict so that it engenders creativity and productivity without sacrificing effectiveness.

Mentor To act as a mentor [40], a leader must understand him/herself as well as others. This role requires effective communication because using that knowledge and helping people, subordinates in particular, grow in knowledge, skills and abilities is an integral part of this role.

Innovator To enable innovations and to support the creativity needed in today's organizations, the innovative role [40] requires that the leader be able to live with and manage change. Change can consist of narrowing and polishing an existing skill set, or it can be novel and new which requires the ability to think creatively.

Broker The final role, broker [40], is a boundary spanning role wherein the leader builds or maintains his/ her power base within a company and/or the industry. The leader must be able to negotiate commitments successfully between his/ her team and the organization, between departments, and between the organization and outsiders such as customers or suppliers. The Broker role thus requires the ability to present ideas effectively to a variety of constituencies.

It is evident from the above descriptions that this set of roles addresses both task and people issues and includes issues related to innovation and future changes. Research has confirmed the usefulness of these skill sets by leaders for over 25 years and across a variety of organizations [12]. However, not all roles are appropriate all the time. Specific use of the roles may depend upon the style or personality of the leader [7] or

the quality of the followers [5]. This list is a good one from which to draw specific skills required for the development of novices. We next look at the roles found within effective teams.

Team Roles

Over 120 team member roles have been identified in the literature [38]. Mumford and his colleagues [38], in a meta-analysis on group roles, reduced these 120 to 10 distinct roles considered critical in effective teams. These roles were contractor, creator, contributor, completer, critic, cooperator, communicator, calibrator, consul, coordinator. Main characteristics of these roles will be discussed next.

Contractor Mumford and associates [38] indicated that this role is responsible for recommending and coordinating tasks needed to be accomplished. It includes setting deadlines and motivating members to meet them. The contractor also summarizes accomplishments and handles team meetings efficiently.

Creator The creator team role [38] helps to provide an initial structure to a team project. Those who play this role provide new ideas and share compelling visions of either the objective, the method for reaching the objective, or the strategy for accomplishing a task. The Creator can reframe things and provide a link to the big picture.

Contributor A contributor role [38] is critical in providing the necessary information or expertise to accomplish an assigned task. Contributors will be assertive in their areas of specialty and yet are willing to share their knowledge with the team. The Creator clarifies team member abilities, resources and responsibilities while sharing his/her background through self-promotion.

Completer When examining the completer role [38], the first thing that arises is the level of personal responsibility that this role requires. Performing this role means completing one's task assignment before the meeting in which it is needed and following through on commitments made to team members. It also includes helping others to complete their tasks and being willing to volunteer to take personal responsibility for additional needed tasks during the task work times or regular meeting times.

Critic Taking on the role of being the critic [38] may require opposing the majority opinion found in the team setting. The goal of this role is to be able to evaluate the team's ideas, decisions and results critically. For example, this role ensures that worst case scenarios as well as best case scenarios are considered during a decision making process. A team member functioning in this role points out flaws in thinking or assumptions and has the courage to present unpopular and negative information to the team.

Cooperator As a cooperator [38], a team member proactively acknowledges the expertise of others and supports them in their fields and directions. Once a team decision has been made, the cooperator supports it and enables the team to move forward. However, play this role does not mean that the individual does not provide input proactively even when it counters another, but it does mean that no animosities persist once a team decision is made.

Communicator In the communicator role [38], a team member helps to craft a team context or culture that supports collaboration. Being a Communicator requires being sensitive to the emotions and feelings of others, listening to the opinions or other contributions of others and using humor to defuse tense situations. Playing this role does not imply social engineering, but rather enacting collegial behaviors through normal communication processes [37].

Calibrator The calibrator role [38] requires that the team member be sensitive to team processes and act to keep these processes aligned with societal norms that enable the team to function. Assuming this role could include helping to set new team norms if dysfunctional processes have emerged during the project undertaken. The role may also require initiating conversations about power plays, tensions between team members, or personal behaviors that may be eroding the ability of the team to accomplish its tasks. This member helps to settle disputes and is capable of summarizing team feelings and soliciting feedback.

Consul The team member in the consul role [38] acts as a boundary spanner representing the team to outsiders. A Consul collects information and resources from relevant others and then shares those resources with the team. The person in this role also acts to present the team in a positive light in an attempt to influence others regarding the results of team's efforts and the success of the team. This member makes persuasive presentations and represents the team positively and with integrity.

Coordinator The final role presented by Mumford and his associates [38] is the coordinator. Players in this role do not exhibit the internal task-focused coordination of the contractor but rather they have an external coordination focus that requires interaction with constituents or users of the team's products/deliverables. This role involves soliciting timely feedback on the team performance and sharing it with the team.

Contractor, creator, contributor, completer & critic are task-oriented roles. These task roles facilitate the accomplishment of the team's main task. From the contractor who sets up the organization and structure to accomplish the immediate task to the critic who provides feedback on the quality of the deliverable, all contribute to a successful task outcome. Communicator, cooperator and calibrator roles are social roles which are used to help maintain the team's culture. Coordinator and consul are boundary-spanning roles that enable the team to communicate with and influence outsiders. Knowledge of the roles and their component behaviors helps to predict how well these roles were performed within a team whether the team was in an academic or work setting [37].

Integration of Leadership Behaviors & Team Roles

If, as stated in the introduction, our goal is to provide a simultaneous team and leader development program, then we need to ascertain three things: 1) What individual-level assumptions impact both role sets? 2) What specific skills support both leader-manager role development and team role development? 3) Are there any process issues that should be considered? We address these areas in that order below.

Individual Level Assumptions Both of the sets of roles above make some assumptions about the individuals involved in teamwork

(1) IS WILLING AND MOTIVATED TO DO THE WORK. The first assumption indicates that the individual is not lazy and is willing to work and will work when given the resources (Leader Roles: Producer; Team Roles: Contributor and Completer).). For academic work teams, the first assumption is often asserted both through the prerequisite structure of either the program as a whole (baseline academic potential tests such as SAT or ACT or GMAT at the masters level) or through course prerequisites and passing grade requirements for major courses within a program. For work teams, this assumption is asserted through periodic performance reviews of individual team members.

(2) KNOWS THE TASKS/WORK TO BE DONE AND HOW TO DO IT. The next assumption is that the individual knows what to do in a task or project effort, is able to do it, and has some sense of when it should be done (Leader Roles: Coordinator, Monitor; Team Roles: Completer, Critic).). For academic work teams, this assumption is often asserted through detailed assignments provided to the individual team members which describe the task to be completed and instructional planning which provides access and exposure to the tools to complete the respective assignment. For work teams, this assumption is asserted through the project management delegation and initial project management meetings.

(3) IS ABLE TO SHARE NEGATIVE INFORMATION SENSITIVELY. The individual is willing to share negative information or be the bearer of bad news. (Leader Roles: Monitor, Facilitator, Mentor; Team Roles: Critic, Coordinator). For academic work teams, this assumption is asserted through instructor-driven focus on sharing group progress issues and challenges for both the task and the process of the assignment, including in many cases team member evaluations, interim reports, etc.

(4) TAKES CORRECTION AND POSITIVELY RESPONDS. A fourth and final assumption is that individuals are willing to receive feedback whether positive or negative and take action to correct anything that is amiss (Leader Roles: Mentor; Producer; Team Roles: Cooperator, Completer).). For academic work teams, this assumption is verified through feedback on team efforts/reports and the individual and collective efforts to resolve problems. For work teams, this assumption is tested through repetitive project management

iterations in which individual efforts at change can be verified. These assumptions must be acknowledged and addressed for any developmental program to be successful. At the very least, there must be an assessment of the individuals to be involved in the program to determine if these assumptions hold true. It may be that steps will need to be taken to insure that the assumptions are met either before the actual developmental program or incorporated into the fabric of such a program.

Common Skill Areas Needed In addition to these general assumptions, some common general skills areas are also needed to support leader-manager role development and team role development. For each individual, in all team settings, these skills include the following:

1) KNOWS HOW TO PLAN. A clear and overarching assumption is that individuals know how to plan to accomplish a work task (Leader Roles: Director, Coordinator, Monitor; Team Roles: Contractor and Creator).

(2) KNOWS HOW TO ASSESS PROGRESS. Another basic skill is that the individual can see when milestones need to be assessed, can gather needed information and conclude whether progress is sufficient and appropriate (Leader Roles: Monitor, Facilitator, Mentor; Team Roles: Critic, Calibrator, Coordinator).

(3) ASKS FOR FEEDBACK AND PROVIDES FEEDBACK. A third basic skill is that the individual knows how to assess quality and to provide feedback and /or proactively solicit feedback. (Leader roles: Monitor, Mentor, Facilitator; Team Roles: Critic, Communicator, Calibrator, Coordinator).

(4) KNOWS TIME MANAGEMENT TECHNIQUES. A fourth basic skill is that the individual understands how much time a project will require and how to manage commitments and other work so that tasks are accomplished in a timely manner and with appropriate attention to priorities (Leader Roles: all roles; Team Roles: All task roles, Calibrator)

(5) BUILDS CONSENSUS. A fifth basic skill is that the individual knows how to gain agreement and generate motivation to accomplish team goals (Leader Roles: Facilitator, Director; Team Roles: Cooperator, Coordinator).

(6) PRESENTS PERSUASIVE ARGUMENTS. A sixth basic skill is that the individual knows how to present a persuasive argument to bring people to a particular perspective (Leader Roles: Broker, Innovator, Director, Mentor; Team Roles: Calibrator, Consul, Coordinator).

(7) COORDINATES AND PROVIDES RESOURCES. A seventh basic skill is that the individual can identify needed resources, determine where to obtain them, decide how to gain access to them and distribute them as needed (Leader Roles: Coordinator, Broker, Facilitator; Team Roles: Contractor, Coordinator).

(8) CONDUCTS MEETINGS. An eighth basic skill is that the individual understands effective meeting processes and especially how to focus attention and resolve process issues (Leader Roles: Facilitator; Team Roles: Contractor and Communicator).

(9) IS SKILLED IN WRITTEN COMMUNICATION. Given the importance of documenting progress, process, and ultimately project outcomes in formal written format, a ninth basic skill is that the individual can communicate effectively using non-oral communication techniques that are typically technology mediated (Leader Roles: Monitor, Mentor; Team Roles: Contractor, Creator, Contributor, Completer, Consul, Coordinator).

(10) SOLVES PROBLEMS COLLABORATIVELY. A tenth basic skill is that individuals need to know how to work collaboratively to solve unstructured and complex problems. (Leader Roles: Facilitator, Innovator; Team Roles: Critic, Calibrator).

While it is true that specific skill levels for certain work tasks need to be in place (as noted above under the assumptions for individuals), these skills identified above are those general skills that will be required of an individual in a leadership position or a team member position no matter the industry or company and regardless of the cultural setting within which the collaboration is occurring. . Thus, it should be possible to design a developmental program that can address all ten of these skill areas.

Process Issues Several process issues have arisen as researchers have examined either leadership behaviors or team behaviors. For example, the context in which a leadership development program is based matters [41]. Leadership training and development need to be focused on the strategic goals of an organization.

For problem solving and decision-making teams, McFadzean [35] suggested that the team's attention to certain tasks is an indication of its relative level development. A team in an initial developmental stage would focus its attention only on the specific task. The meeting process was the focus at level two. Level three shifted the team's focus to a team structure. After the designation of the team structure, attention turned to team dynamics. The fifth level was team trust. McFadzean [35] further suggested that variation in team performance is related to variation in the developmental stage of the team. Chong [15] empirically demonstrated that different team behaviors are required at different stages of team development in order for effective team performance to occur. Thus, when beginning work in a new team, time and exercises should be spent on corresponding skills of task knowledge, meeting process, team structure, team dynamics and team trust levels across time as the team develops.

Another team process issue that arises is the size of a team. For complex problems, Belbin suggests an ideal team size of 6 [8]. Like Quinn in the competing values framework regarding leader-manager skills [40], Belbin [8] believed that teams within which all roles were enacted were more effective in team processes. Others have not found this to be the case [49][37][15]. They acknowledge, instead, that an individual with a wider the range of skills is more adaptable in a group setting [37].

When considering how to work ethically within a newly formed team, it is suggested that the initial steps include having a team compact or contract [18]. This contract should include the following information: who will be involved; length of time the team will be in effect; how the team will work together; how conflict and/or poor performance on the part of an individual member will be handled; how individual work shall be saved and made available for the team; and how team work shall be archived and made available to the individual team members [18].

APPROPRIATE DEVELOPMENTAL TECHNIQUES

There is little research addressing the simultaneous development of leadership and team member skills sets (see for an example, Hensley [27]), yet from the above descriptions, it seems clear that there is much overlap between the two skill sets. Three literatures will be briefly reviewed next: leader development, team development, and the current academic context. Following these reviews, we will propose a synthesized version of a leader and team role developmental program.

Leader Development

We summarize here *leade*r (as opposed to leadership) development processes because our focus is on enabling individuals to gain skills as leaders rather than an entire organization's effort to develop leaders [16][41]. Current state-of-the-art leader training methods have not changed in several years. They include classroom type learning, assessment center focused learning, simulations, action learning and leadership/management games [16][41]. However, technology mediation does enable novel delivery of some of these confirmed techniques [41]. A common issue addressed by all leader development programs is leader self-awareness. Leaders must be able to seek feedback from a variety of sources and to act on that feedback [41]. A tight link between leadership development programs and day-to-day organizational practices is critical for the internalization of the skills such that they extend beyond the program or classroom [16].

The search for leadership development programs that included team processes in their framework yielded very little that expressly included the development of both sets of skills simultaneously. However, Carpenter and Sanders [13] presented a 5-step leadership development process which begins with individual skills, then moves to team skills, then to team leadership, then to excellence in leading teams, followed by organizational leadership and ends with humility and modesty in excellence of organizational leadership. So while there is little published work on the integration of the training for the two role sets, there is support for considering it.

Team Training/Development

There is a difference between team training and team building [32]. Team training focuses on enabling people to learn specific team roles, while team building is a team intervention designed to help a specific team perform better. We are focusing on team training based development programs. Such training does improve both team functioning and team performance [32], even when it is general team training [21]. Team members' understanding of teamwork competencies (for example the team roles mentioned above) positively impacted planning and task coordination, collaborative problem solving and communication skills [21].

There seems to be some contradictory findings on the relative importance of taskwork skills and teamwork skill training sessions. Teams need to enter teamwork skill training with a base level of taskwork skills [44]; however, the opposite was found by Ellis and his colleagues[21]. It may be that a minimal threshold is needed for teamwork to have any meaning but that more advanced skills can follow some basic teamwork training. It is important to not overload team training participants with too much information in any one session [39]. Thus, multiple sessions for training may be advisable.

Typical teamwork training methodologies include guided practice [44], lectures [1], simulations, and role plays [21]. Providing opportunities for individuals to practice a skill in multiple settings with allowance for mistakes and the opportunity to learn from those mistakes is very valuable [21]. In any case, team task analysis should be the first step in designing and providing any team training program [21]. When the goal is to gain skill-based outcomes, then a role play exercise or simulation should be used as the evaluation mechanism [33].

The Academic Context

When considering the current higher education academic environment or context, several topics need to be addressed including the appropriateness of a topic within a curriculum, the characteristics of the students involved, and the resulting appropriateness of an andragogical method. We will address these three components given the earlier discussion about leader development and teamwork training.

Appropriateness of Topic When we consider the teaching of leader role skills, it fits into the range of "soft skills" that are being called upon to revive a misimpression of graduate management training [25]. There have been positive links made between leader development programs for both youths or adults and creativity in organizations [30]. The teaching of leader roles has been identified as one of the most important topics in management education [2].

When it comes to teaching teamwork skills like team roles, certainly the direct teaching of "soft skills" is an important part of any Master of Business Administration program [25]. Furthermore, it seems appropriate at the undergraduate level too since team projects are an integral part of many upper-level business school courses Within the context of a semester-long project within a given course, teams are created and dissolved in a very short time period, oftentimes with a large component of the overall course grade assigned to the outcome of the collaborative effort by the team. In many cases, however, teams are provided the task assignment and expected to develop quickly a common understanding of what needs to be done to get to the formal outcome specified by the professor. In many cases, students are expected to create successful "teamwork" without further effort on the part of the faculty [26][3]. In one example of how limited the coaching and mentoring of teams can be, Bolton [9] found that 72% of instructors in the business school at San Jose State University assigned students to teams in at least one class, but 81% gave "modest, limited, or no support to students assigned to teams" [9: page 232]. Certainly, there have been very recent calls for the explicit inclusion of teamwork processes in business curriculums [23].

Characteristics of Higher Education Students Society at large and instructors in college campuses across the nation bemoan the declining standards in today's academic programs from kindergarten to graduate work [48]. They point to the lack of textual literacy on the part of students (grammar, writing skills, reporting and synthesizing skills) [43] [48]. Without a doubt, Sacks [43] spoke for many post-secondary educators when he noted the following student behavior:

> "Scattered mostly in the back and far side rows were young males… and an ample attitude. Slumped in their chairs, they stared at me with looks of disdain and boredom, as if to say, "Who in the hell

> cares where you worked, or what your experience is, or what you know? Say something to amuse me." I would encounter this look and The Attitude often. It was a look of utter disengagement." [43: page 9].

This disengagement has resulted in some teachers seeking "entertainment" based lectures.

The attitude of passive entitlement [43] is one that the "system" of education had cultivated over the years in the students. It is in part an unintended result of the training to one single uniform "standard" that was needed during the industrial age and was then coupled with the self –efficacy movement in education during the 1970s and 1980s [48]. The disengagement and attitude of non-valuing the backgrounds of the academics is in part a result of students being exposed to high levels of technological skills on many areas outside of education so that the "novice" treatments of technology found inside of our institutional walls triggers a "disbelief" bias on the part of the students [42]. The desire to not engage until the value of the engagement is made clear is, in part, a result of information gathering and technological interactive training that the students have via non-school forms of learning (such as found in their learning how to play video games, surf the internet, channel surf the TV, program VCRs and utilize other technological tools) [42]. They access information as they need it and learn from repeated attempts and failures. We, in most institutions of higher education, are woefully unprepared to compete in our dissemination of information on any of these fronts.

Many of these same issues also impact the believability of our programs for returning students (or in the past "non-traditional" students). These full time working students have many demands on their time. They need access to specific skills and information for the furtherance of their career, and they need this specific help now. Our programs with general information are not as useful to them because they cannot see the "value" in learning something that, by the time they have need for it, will most likely be outdated. They, in many cases, are accustomed to using higher levels of technology on a daily basis than is found in their classroom experiences or in most of their interactions with universities.

The wide-spread use of the internet and other network-based systems has created in students the anticipation of modern, efficient organizations that utilize such systems to reduce "time spent in creating paperwork, paperwork shuffling and removed many of the routine decisions from the backs of supervisors and onto the back of the information processing system." What instead they find at many universities is often perceived as antiquated (by their standards) information systems, instructors who present lectures from outdated notes via outdated methods, lectures that require memorize-and-regurgitate orientations and few if any real-life applications that they hoped to obtain. They also find programs that have taken so long to change that they are being taught "useless" information.

Even when academic programs have responded by including content and process changes, the same disengagement still can occur. Many post-secondary educators can cite a range of anecdotal instances of circumstances in which the students don't come to class prepared unless they were tested on the assigned cases before the discussion, and can attest to the fact that even if the students are prepared they still do not participate actively in class discussion. When team experiences are offered, many "better" students decline to take such courses because of their past teamwork experiences and the problem of slackers. Such experiences often occur because there has been little to no development of team process skills, and typically, there is a lack of controls to ensure team member accountability. Consequently, many students cite experiences "free riders" and having few, if any, effective ways of managing the problems those slackers cause.

Appropriate Andragogy From the earlier discussions, we have noted that effective development programs for both leader role training and team role training include active learning techniques such as collaborative learning, problem-based learning linked to a real world context, simulated experiences whether in face-to-face role play situations, simulations mediated by technology and problem solving in a simulated work environment. Collaborative learning is widely considered to be good training for future employment in business [10][26][47]. In a senior-level classroom setting, undergraduate students typically arrive with some basic skills in the topic area and will be introduced to more advanced skills during the course of the term. Such an approach lends itself to the use of active learning andragogies such as a team project oriented towards identifying, addressing and solving a complex problem or issue [21]. Advantages of teamwork are said to include greater motivation and challenge than individual assignments, and a context where students can benefit from interaction with and learning from one another [17].

Additional considerations when designing the joint leader role/ team role training program include a number of issues mentioned earlier. For example, the need to include self-reflection opportunities was a process issue related to leader role training programs. Additional leader role based issues include having the leader training focused on those needed for the specific needs of the team in a particular strategic context and using complex decision tasks such as simulations that mirror real world experiences. Such experiences help students learn to cope with the complexity of the real world [54]. Other team role training issues include limiting team size to no more than six when addressing complex problems; training and practice in a wide range of team roles and, when using a newly-formed team, including a team behavior contract.

Imbedding teamwork training into the team project. At the core of team projects is the desire for students to not only interact critically with the task, but to do so in a simulated organizational setting, the work group. Thus, a team project meets several criteria for an effective teamwork training program. Often these team projects require the creation, development and disbanding of a team within timeframes as short as 5 weeks or as long as 15 weeks. Thus, these are new teams which provide an opportunity ripe for teamwork training.

For example, this is a good time to either introduce or reinforce the need for a team behavior contract. In the context of course-based team projects, professors typically provide student teams with formal outcome controls for the final team project (e.g., page length, presentation format, organization, structure, analysis to be included, etc.), but limited guidance is provided about *how* to enact behavioral control within the group. Thus, teams need to have some way to share expectations about team member involvement. As mentioned earlier and noted by Dyer [55],

> …professors may put students into study or project teams and grade the team project but will spend no time at all in helping these students understand how a good team functions and how to manage group problems that arise… The end result is that usually a few students take over and get the group paper or project completed while others goof off or slide along and get rewarded for the efforts of others. This leaves many students with a negative feeling about group activities as they leave school and go into the work force. (55: page 152)

As such, outcome controls are clearly provided by the supervising professor, but much about what happens to get to the outcome is not controlled through such formal mechanisms, with the exception of some attention to peer evaluation. Kirsch [56] noted, "While coordinating task-related activities is obviously important…individuals also exercise control to foster relationships in order to engender cooperation and elicit individual cooperation" (p. 236). Del Monte [18], however, also suggested that ethically such expectations for team member behavior and individual and team contributions should be made explicit from the beginning in a team contract. Thus, this should be an explicit part of a joint leader-team role training program.

To emphasize the importance of team projects, professors often assign a substantial proportion of the individual student's grade based on these projects [3][28]. Thus the effective functioning of the team as well as the quality of its final product is critical to the individual student's success in the course. Such a grading scheme imposes strong motivation for the individual to take on team tasks and do them with dedication. In the process, the necessity of participation in both effective leader roles and team roles is reinforced.

However, professors are unable to be a part of every facet of the team's process and functioning [57]. While they may either assign group membership or provide guidelines for team formation, in many cases the only evaluation of the team's work is the final product. , There is no mechanism for determining individual team members' contributions [56]. One way to circumvent this problem is to follow common business practice where the individual "rewards" are "weighted" according to the contribution of the team member [36]. Students may find this a bit of a shock [48] but, anecdotally, it does tend to motivate the lazy or "why bother to try" student to put forth his/her fair share of the team's effort.

COURSE AND PROJECT DESIGN BASED ON IMPLEMENTING A JOINT LEADER-TEAM ROLE DEVELOPMENT PROGRAM

We now provide the example of a capstone strategic management class that is designed for the development of both leader role skills and team role skills. Recall that both leader development programs and team training programs are more effective when they incorporate active learning, preferably around a "real world" problem. At the same time, these programs provide multiple opportunities so that a failure in one can be redeemed by a later success.

When designing this course, multiple opportunities to engage in problem-based learning were provided. This type of learning was enhanced by providing time to plan before engaging in the active learning event. Recall also, that when forming a new team, it is better to have a team contract specifically outlining appropriate team behaviors as well as the consequences for violations. Retention of learning about team role behaviors was enhanced by explanation of the team roles along with the opportunity to practice those roles. Given these parameters, we have the following general course design (See Table 1).

The action learning problem and each set of activities included in the action learning problem are described next. This section is followed by descriptions of the team roles used. Leader roles were never officially described but the developmental process for leaders was detailed with an acknowledged emphasis on individual and team member skill attainment. Thus, the leader role skill development is a by-product of the other activities involved and will not be separately detailed.

Table 1: Agenda for 20 meeting Strategic Management Course

Date	*Scheduled Course Topic & Assignment Due Dates*	*Role Competency Objectives*
Day 1	IN-CLASS: Introduction to the Course – Project Overview *Section 1: Setting the Stage for Competitive Advantage: What is Strategic Management?* **Due 8PM: Individual Homework #1: Prospective Team Mate Qualifications Report**	Leader: Mentor Role: Self-Reflection
Day 2	IN-CLASS: Introduction to the Course – Team Building/Project Formation *PP Point Opportunity #1* *Section 1 Continued* Logic & Teams Team Role #1 Assigned Team Work Time for Team Assignment #1	Leader Roles: Facilitator, Producer, Director, Coordinator Team: Introduction to Team Roles Team Development: Form new teams
Day 3	IN-CLASS: Introduction to the Course – Ch 1, 2 & 13 & Project Mgt review *PP Point Opportunity #2* **Due Midnight: Team Assignment #1 –Team Consulting Name/Logo, Contract & Planning Overview**	Leader Roles: Producer, Director, Coordinator, Monitor; Innovator, Facilitator Team Roles: Practice in all Team Roles Team Development Step 1: Team Contract made
Day 4	IN-CLASS: **Quiz I (Section 1 – Strategic Management)** *PP Point Opportunity #3* *Introduction to Section 2: Analyzing the External Environment of the Firm* via Library Team Work Time on Team Assignment #2: Orientation to Semester Projects (Ms. Casey Schacher) **Team Roles Change to Role #2** Team Work Time for Team Assignment #2 **(Class meets in Kimbel Library Reference Area)** **Due: Summary of Team Participation & Practice Team Evaluations**	Leader Role: Facilitator, Monitor, Producer, Innovator, Broker, Mentor Team Roles: *(New Role Participants)* Critic, Creator, Contributor, Communicator Team Development Step 2: Team Roles
Day 5	IN-CLASS: *Section 2: Analyzing the External Environment of the Firm* *PP Point Opportunity #3 (C&S Ch. 4; Handbook Section 2)* **Due Midnight: Team Assignment #2 – Treasure Hunt**	Leader Role: Facilitator, Producer, Monitor, Facilitator Team Roles: Practice in all Team Roles

Date	*Scheduled Course Topic & Assignment Due Dates*	*Role Competency Objectives*
Day 6	IN-CLASS: **Quiz II (Section 2 – External Analysis)** *Introduction to Section 3: Analyzing the Internal Environment of the Firm* **Team Roles Change To Role #3** Team Work Time for Team Assignment #3 **Due: Summary of Team Participation & Practice Team Evaluations**	Leader Role: Facilitator, Producer, Monitor, Mentor , Director, Innovator Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 7	IN-CLASS: *Section 3: Analyzing the Internal Environment of the Firm (cont.)* Team Work Time for Team Assignment #3	Leader Role: Facilitator, Producer, Monitor, Mentor , Director, Innovator Team Roles: Practice in all Team Roles
Day 8	**Quiz III (Section 3 – Internal Analysis)** *Section 4: Implementation and Control* Due: Summary of Team Participation	Leader Role: Producer, Monitor, Mentor , Director, Innovator, Coordinator, Facilitator Team Roles: Practice in all Team Roles
Day 9	Due: Practice Case Write-up **Quiz IV (Section 4 - Implementation)**	Leader Role: Facilitator Producer, Monitor Team Roles: Practice in all Team Roles
Day 10	*Section 5: The Selection of Strategies: Business Level Strategy and Strategy Scope* Case Discussion: **Practice Case** **Due: Team Assignment #3: State of the Industry Report** **Due: Summary of Team Participation & Team Evaluations** **END of DAY: Team Roles Change to Role #4**	Leader Role: Mentor, Facilitator, Producer, Team Roles: Final Practice in all Team Roles*(New Role Participants at midnight)*
Day 11	*Section 5: The Selection of Strategies: Business Level Strategy and Strategy Scope (cont.*)	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker Team Roles: Practice in all Team Roles
Day 12	*Section 5: The Selection of Strategies: Business Level Strategy and Strategy Scope (cont.)* **Due: Team Assignment #4: Team Case Oral Reports Begin** **(Team Roles Change for this team to #5)** **Case Presentation 1:**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 13	**Quiz V (Section 5 – Business Level Strategy)** *Section 6: The Selection of Strategies: Corporate Level Strategy* **Due: Summary of Team Participation**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: Practice in all Team Roles
Day 14	*Section 6: The Selection of Strategies: Corporate Level Strategy* **Due: Team Assignment #4: Team Case Oral Reports Continue** **(Team Roles Change for this team to #5)** **Case Presentation 2** **Due: Team Evaluations**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 15	*Section 6: The Selection of Strategies: Corporate Level Strategy (Cont.)* **Due: Team Assignment #4: Team Case Oral Reports Continue** **(Team Roles Change for this team #5)** **Case Presentation 3:** **Due: Team Evaluations**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 16	**Quiz VI (Section 6 – Corporate Level Strategy)** **Due: Team Assignment #4: Team Case Oral Reports Continue** **(Team Roles Change for this team #5)**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor

Date	*Scheduled Course Topic & Assignment Due Dates*	*Role Competency Objectives*
	Case Presentation 4:	Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 17	Team Meetings with Professor (make an appointment) **Team Work Time** **Due: Team Assignment #5 Final Consulting Reports by 9pm** **Team Roles Change to #6**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: *(New Role Participants)* Practice in all Team Roles
Day 18	**Due: Team Powerpoint Slides for ALL Final Consulting Project Presentations (All Teams)** **Team Assignment #6: Consulting Project Presentations (2)** Due: Summary of Team Participation & Team Evaluations	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker. Mentor Team Roles: Practice in all Team Roles
Day 19	**Team Assignment #6: Consulting Project Presentations (2)** Due: Summary of Team Participation & Team Evaluations	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: Practice in all Team Roles
Day 20	Team Assignment #6: Consulting Project Presentations (2) **Due: Summary of Team Participation & Team Evaluations**	Leader Role: Facilitator, Producer, Monitor, Director, Innovator, Broker, Mentor Team Roles: Practice in all Team Roles

Action Learning Problem(s)

The active learning problem to be completed was the development of a comprehensive assessment of the competitive environment within which a publicly traded focal company competed and the articulation of a comprehensive set of appropriate recommendations to guide the respective firm forward. This assignment was designed to serve the following four objectives:

(1) Application of analytical tools and processes discussed within the context of the capstone undergraduate Strategic Management course;
(2) Integration and active engagement of the multiple disciplinary focuses of students pursuing different majors within the business administration bachelors program;
(3) Ability to identify appropriate sources of data regarding competitive environments and to assess and interpret this data effectively; and
(4) Synthesis of the above matters into effective oral and written deliverables or professional quality.

The project therefore unfolded in several phases.

Team Roles

As can be seen from the course agenda, there are multiple team assignments and each assignment has the requirement of a shift in the assigned team roles. The roles expected of all team members at all times are the task roles of contributor and completer. Combining the remainder results in a total of six team roles. The logic for combining these roles is based on the maturity level of the team members (undergraduate students as described earlier), as well as, the need to provide a role assignment for each team member. Thus, teams of no more than six members were allowed. If team had fewer than six members, then the roles were condensed further; i.e, one or more members assumed more than one role. Furthermore, the roles were relabeled to reflect names that the students might readily recognize and understand how to perform them. The revised six role names were: Facilitator, Recorder, Time Keeper, Quality Control, Reporter and Archivist. Each of these revised roles is described below.

Facilitator This combined role includes elements of the contractor and creator task roles as well as the leader's communicator role. This person crafts team meeting agendas, conducts meetings, provides an initial structure to the project, solicits contributions from everyone, recommends and coordinates tasks needed to reach the next milestone/deliverable, and determines what help or supplies are needed for others to accomplish assigned/volunteer for tasks. This role calls for skills also used by the leader in directing, mentoring, facilitating and coordinating roles.

Recorder This role includes elements of the creator and completer task roles and the communicator and collaborator process roles. The recorder creates a written record of the meeting details on the Team Meeting Report; compiles work of all team members; helps set new team norms when needed due to missing task steps or process issues; may initiate conversations addressing submission of tasks by others; and estimates time needed to complete final polished versions of documents or multimedia.

Time Keeper This role includes elements of the completer task role and the collaborator and calibrator process roles. The person acting as a time keeper keeps track of time spent on various tasks and indicates when too much time has been spent on any one task. The time keeper helps remain on task in meetings and sends reminders of deadlines as they approach.

Quality Control Responsible for ensuring quality control, this person takes on the task role of critic as well as elements of the calibrator process role. The quality control individual reminds team members of agreed-upon quality standards as well as the criteria for reasoning. This person helps maintain sensitivity to the responsibilities associated with team roles as well as the importance of employing them. The team member responsible for quality control is willing to oppose the team majority in order to raise important but overlooked issues. The assessment of the quality of team and/or individual members' output is also this member's responsibility.

Reporter This role encompasses both of the boundary spanning roles of consul and coordinator along with the process skills of the communicator and collaborator. This person presents orally to class any required debriefings. This person acts as the team representative for between-group meetings and communications with professor. A part of this role entails actively listening to others and may include using humor to alleviate tensions. This member works on constructing a positive spin for the team's image and deliverables without misrepresenting efforts or quality.

Archivist Aspects of the contractor task role, the coordinator boundary-spanning role and the collaborator process role are found among the responsibilities of the archivist. This is the person responsible for the team folder (containing all team work and record-keeping), gathers material to be turned in, and distributes material from folder. This role is responsible for arriving early to help set up the facility. Locating needed resources and sharing those resources with the team is also the responsibility of the archivist.

Six roles and six assignments with required role changes ensure that each person has an opportunity to practice the skills involved with each team role. Because of the differing assignments among roles, there is also reinforcement of the ability to translate the skills into differing contexts for greater retention.

RESULTS AND DISCUSSION

Preliminary results of the training tools applied lead to some conclusions. While several types of assessment tools can be compared, we choose to focus here on one that is task focused (the overall quality of the end product) and one that is process focused (evidence from the ability of teams to work productively together).

Given the focus on task accomplishment noted earlier in this type of assignment, we can note that the team/task interface yielded projects with scores ranging from 74% to 98%. In addition, the better reports have up to 90 sources of information. They have detailed appendices that summarize the result of research or strategic analyses. They have concise reports that focus on the results and recommendations. They are word-smithed and include more advanced word processing features. A sample of a table of contents from one of the better strategic reports is found in Appendix A.

Often you can find students who merely describe a strategic analysis tool in their report rather than summarizing the results of having done the analysis. In Appendices B and C, you find two sets of summary

paragraphs found in the bodies of two reports. Although there are style differences, the quality of the summaries are clearly evident. Another difficult area for students is in the synthesis of information and being able to make a significant recommendation. In Exhibit D, you will find an example of a final section of the main body of the report.

ADDRESSING THE PROBLEM OF INDIVIDUAL ACCOUNTABILITY

You will recall that the lack of individual accountability has been cited as a weakness in many teamwork assignments. To counter this problem, we developed a peer evaluation system where each team member is required to submit individually an assessment of each team member's work as well as his/her own work. Each member is rated on five items on a one-to-five scale. Any team member who rates another team member less than four on any item is required to provide an explanation for the low rating. Evaluation forms (see Appendix B) are collected, and the total scores are compiled by the professor.

Each individual's total score is then divided by the total possible score to yield what we consider to be each individual's percentage contribution to the assignment. All contributions of 90% or better are considered satisfactory. The contribution percentage for anyone below 90% is used as a weight to determine what part of the team's grade that low-performing team member will earn. A few quick calculations will reveal the devastating effect this weighting process can have on a "free rider's" grade. An example of how grades are affected by this process is provided in Appendix C.

Further, we feel that for anyone whose contribution was determined to be less than 90%, other teammates had to do extra work beyond their agreed upon contributions. Therefore, any points forfeited by the "slacker" (i.e., team grade minus slacker's grade) are distributed among those team members with particularly outstanding contribution percentages. Thus, not only are those who did not do the required work penalized, those who did extra work are rewarded.

REFERENCES

[1] Arthur, W., Bennett, W., Edens, P. S., Bell, S. T. 2003. Effectiveness of training in organizations: A meta-analysis of design and evaluation features. *Journal of Applied Psychology*, 88: 234-245.

[2] Augier, M. & Teece, D. J. 2005. Relfections on (Shumpeterian) leadership: A report on a seminar on leadership and management education, *California Management Review*, 47(2): 114-137.

[3] Bacon, D.R., Stewart, K.A., & Silver, W.S. 199). Lessons from the best and worst student team experiences: How a teacher can make a difference. *Journal of Management Education*, *23*(5), 467-488.

[4] Bass, B. M. & Riggio, R. E. 2006. *Transformational Leadership. 2nd Ed.* Lawrence Erlbaum Associates, Inc.

[5] Black, J. A., Oliver, R. L. 2008. The Distribution of Leadership Skills Across a Single Focus Company, a Multi-focus Company and an Industry: Three Case Studies, Advances in Applied Business Strategy, Vol 11:169-190, London: Elsevier Unlimited.

[6] Black, J. A., Oliver, R. L., Howell, J. P. & King, J. P. 2006. A Dynamic System Simulation of Leader and Group Effects on Context for Learning, *The Leadership Quarterly*, 17(1), 39-56.

[7] Belasin, A. & Frank, N. 2008. Competing values leadership: Quadrant roles and personality traits. *Leadership & Organizational Development Journal*, 29(2), 127-143).

[8] Belbin, R. M. 1993. *Team Roles at Work.* Butterworth-Heinemann, Oxford.

[9] Bolton, M. K. 1999. The role of coaching in student teams: A "just-in-time" approach to learning. *Journal of Management Education, 23*, 233–250.

[10] Brooks, C. M. & Ammons, J. L. 2003. Free riding in group projects and the effects of timing, frequency, and specificity of criteria in peer assessments. *Journal of Education for Business*, *78*(5), 268-272.

[11] Burke, C. S., Stagl, K. C., Goodwin, G. F., Salas, E. & Halpin, S. M. 2006. What type of leadership behaviors are functional in teams? A Meta-Analysis. *Leadership Quarterly*, 17: 288-307.

[12] Cameron, K. S., Quinn, R. E., DeGraff, J., & Thakor, A. V, 2006. *Competing Values Leadership: Creating Value in Organizations*, Northampton, MA: Edward Elgar Publishing

[13] Carpenter, M. & Sanders, G. 2009. *Strategic Management: Concepts and Cases* (2nd ed.) River Falls, NJ: Prentice Hall

[14] Chen, M., Lin, H. & Michel, J. G. 2010. Navigating in a hypercompetitive environment: The roles of action aggressiveness and TMT integration. *Strategic Management Journal*, 10(31): 1410-1430.

[15] Chong, E. 2007. Role balance and team development; A study of team role characteristics underlying high and low performing teams. *Journal of Behavioral and Applied Management*. 8(3): 202-217.

[16] Dalakoura, A. 2009. Differentiating leader and leadership development, *Journal of Management Development*, 29(5): 432-441.

[17] Dommeyer, C.J. (2006). The effect of evaluation location on peer evaluations. *Journal of Education for Business, 82*(1), 21-26

[18] Del Monte, K. 2000. Partners in inquiry: Ethical changes in team research, International social science review, 75(3/4): 3-15.

[19] Dubinsky, Y., Yaeli, A. & Kofman, A. 2010. Effective management of roles and responsibilities: Driving accountability in software development teams. *IBM Journal of Research & Development*, 54(2):4-15.

[20] Edmondson, A. C. 2008. The competitive imperative of learning, Harvard Business Review, July-August: 30-67.

[21] Ellis, A. P. J., Bell, B. S., Ployhart, R. E., Hollenbeck, J. R., Ilgen, D. R. 2005. An evaluation of generic teamwork skills training with action teams: Effects on cognitive and skill-based outcomes, *Personnel Psychology*, 58: 641-672.

[22] Ericsson, K. A. 2009. *Development of Professional Expertise*, Cambridge University Press, New York.

[23] Figl, K. 2010. A systematic review of developing team competencies in information systems education, *Journal of Information Systems Education*, 21(3): 323-337.

[24] Fleishman, E. A., Mumford, M. D., Zaccro, S. J., Levin, K. Y., Korotkin, A. L. & Hein, M. B. 1991. Taxonomic efforts in the description of leader behavior: A synthesis and functional interpretation. *Leadership Quarterly,* 4: 245-287.

[25] Halfhill, T. R. & Nielsen, T. M. 2007. Quantifying the "softer side" of management education: An example using teamwork competencies, *Journal of Management Education*, 31(1): 64-80.

[26] Hansen, R.S. 2006. Benefits and problems with student teams: Suggestions for improving team projects. *Journal of Education for Business*, *82*(1), 11-19

[27] Hensley, L. G. 2002. Teaching group process and leadership: The two-way fishbowl model, *Journal for Specialists in Group Work*, 27(3): 273-286

[28] Hirsch, P. Shwom, B. & McKenna, A. (2003). Teaching and assessing teamwork: Implementing continuous quality improvement. *Proceedings of the 2003 Association for Business Communication Annual Convention.* Association for Business Communication.

[29] Horan, J. 2007. Business driven action learning: A powerful tool for building world-class entrepreneurial business leaders. *Organization Development Journal*, 25: 75-80.

[30] Houghton, J. D. & Di Liello, T. C., 2010. Leadership development: The key to unlocking individual creativity in organizations, *Leadership & Organization Development Journal*, 31(3): 230-245.

[31] Katz, D., & Kahn, R. L. 1978. *The Social Psychology of Organizations* (2nd ed.). New York: Wiley.

[32] Klein, C., Salas, E., Burke, C. S., Goodwin, G. F., Halpin, S. M., Diazgrandados, D., & Badum, A. 2006. Does team training enhance team processes, performance and team member affective outcomes? A meta- analysis*, Academy of Management Annual Meeting Proceedings*, Academy of Management

[33] Kraiger, K., Ford, J. K., Salas, E., 1993. Application of cognitive, skill-based and affective theories of learning outcomes to methods of training evaluation. *Journal of Applied Psychology*, 78: 311-328.

[34] Leonard, D. & Swap, W. 2005. *Deep Smarts: How to Cultivate and Transfer Enduring Business Wisdom*, Boston, MA: Harvard Business School Press.

[35] Mc Fadzean, E. 2002. Developing and supporting creative pbolem-solving teams: Part 1—a conceptual model, *Management Decision*, 40, 5/6, 463-476.

[36] Merriman, K. K. 2009. On the follow of rewarding team performance, while hoping for team work, *Compensation & Benefits Review*, 41:61-66.

[37] Mumford, T. V., Van Iddekinge, C. H., Morgeson, F. P. & Campion, M. A. 2008. The Team Role Test: Development and validation of a team role knowledge situational judgment test, *Journal of Applied Psychology*, 93(2): 250 -267.

[38] Mumford, T. V., Campion, M. A. & Morgeson, F. P. 2006. Situational judgment in work teams: a Team role typology. In J. A. Weekley & R. E. Ployhart (Eds.), *Situational Judgment Tests: Theory, Measurement and Application*, pp. 319-343. Mahwah, NJ: Erlbaum.

[39] Paas, F., Renkl, A., Sweller, J., 2003. Cognitive load theory and instructional design: Recent developments. *Educational Psychologist*, 38: 1-4.

[40] Quinn, R. E., Faerman, S. R., Thompson, M. P. & McGrath, M. R. 2003. *Becoming a master manager: A competence approach* (3rd ed.). Hoboken, NJ: John Wiley & Sons.

[41] Riggio, R. E. 2008. Leadership Development: The Current State and Future Expectations, *Consulting Psychology Journal: Practice and Research*, 60(4): 383-392.

[42] Rushkoff, D. 1996. *Playing the Future*. New York: Harper Collins.

[43] Sacks, P. 1996. *Generation X goes to College*. Chicago, IL: Open Court.

[44] Salas, E. Burke, C. S., & Cannon-Bowers, J. A. 2002. What we know about designing and delivering team training. In K. Kraiger (Ed.), *Creating, implementing and managing effective training and development: State-of-the-art lessons for practice*, pp. 234-259, San Francisco: Jossey Bass.

[45] Steiner, I. D. 1972. *Group Process and Productivity.* New York: Academic Press.

[46] Stewart, G. L., Fulmer, I. S. & Barrick, M. R. 2005. An exploration of member roles as a multilevel linking mechanism for individual traits and team outcomes. *Personnel Psychology*, 58, 343-365.

[47] Taracone, P. & Luca, J. (2002). Employees, teamwork, and social independence – a formula for successful business? *Team Performance Management, 8*, 54-59.

[48] Twenge, J. M. 2006. *Generation Me*, New York, NY: Free Press.

[49] Van de Water, H., Ahaus,K. & Roszier, R. 2008. Team roles, team balance and performance, *Journal of Management Development*, 27(5): 499-512.

[50] Zhang, X., Chen, Y. Y., Kwan, H. K. 2010. Empowering leadership and team creativity: The roles of team learning behavior, team creative efficacy and team task complexity, *Academy of Management Annual Meeting Proceedings*, Academy of Management

[51] Thompson, L. L. (2008). *Making the Team: A Guide for Managers*, 3rd Ed., Upper Saddle River, NJ: Pearson-Prentice Hall.

[52] Humphrey, S. E., Mannor, M. J., Moregeson, F. P. (2009). Developing a theory of the strategic core of teams: A role composition model of team performance, *Journal of Applied Psychology*, 94(1), 48-61.

[53] Hobson, C. J., Strupeck, D., Szostek, J. (2010). A Behavioral Roles Approach to Assessing and Improving the Team Leadership Capabilities of Managers. *International Journal of Management*, 27(1), 3-15

[54] Gabrielsson, J., Tell, J., & Politis, D. (2010). Business simulation exercises in small business management education: using principles and ideas from action learning, Action Learning: Research and Practice, 7(1), 3-16

[55] Dyer, W.G. (1995). *Team Building: Current Issues And New Alternatives*, 3rd Edn (New York, Addison Wesley).

[56] Kirsch, L.J. (1997). Portfolios of Control Modes and Is Project Management, *Information Systems Research,* 8(3), 215-239.

[57] May, G. L., Gueldenzoph, L. E. (2006). The effect of social style on peer evaluation ratings in project teams, *Journal of Business Communication*, 43(1), 4-20.

APPENDIX A: EXAMPLE OF AN A LEVEL REPORT, PROJECT A.

TABLE OF CONTENTS

Appendices

APPENDIX B: SUMMARY PARAGRAPH FOR FIVE FORCE ANALYSIS PROJECT B

FIVE FORCES ANALYSIS

There are three leading competitors in the video game industry: Nintendo, Activision Blizzard, Inc., and Electronic Arts (Standard & Poor's, 2011a). The top three leading firms have significantly higher market share than the rest of the video game firms, and these firms fight fiercely to stay on top (Liu, 2010). High quality video games are high in cost pertaining to research and development, so firms with higher market share have a great advantage (R., C. C., 2005). Reference Appendix P for *rivalry among competing sellers* chart and a detailed analysis.

The main threatening entrants already established video game companies need to watch out for is freelance developers (Schilling, 2003). If a freelance developer can develop a game with an innovative idea and sparked by technology, that developer can choose to contact investors and raise capital (Schilling, 2003). As of now, there is no determinant as to whether it is hard for a freelance developer to enter the market; it mainly depends upon the novelty of the new game idea (Schilling, 2003). Reference Appendix P for *threat of new entrants* chart and a further explanation of the force.

Video games are considered to have no real substitute products (Liu, 2010). Movies are a similar technology, but it does not require the interactive aspect, nor does it require so much focus and attention (Arakji, 2007). Please reference Appendix P for *firms offering substitute products* chart and more information on the force.

Although there are over fifty suppliers to the video game industry, these suppliers still have a good deal of bargaining power over the firms (Johns, 2006). Suppliers can choose whom to sell to, and prefer to choose firms producing high revenue products (Johns, 2006). Reference Appendix P for *supplier bargaining power* chart and a detailed analysis.

The consumers of video games have the most bargaining power over video game firms (Hsu, 2005). Video game fans keep the companies in business, so it is essential to keep customers happy and wanting to come back for more (Hsu, 2005). Gamers are quick to turn on a video game firm if the firm were to slip up even once (Hsu, 2005). Reference Appendix P for *consumer bargaining power* chart and a further explanation of the force.

APPENDIX C: SUMMARY PARAGRAPH FOR FIVE FORCE ANALYSIS PROJECT B

Five Forces

Each of the five competitive forces, along with the strength of complementary forces, has a varying effect on the water utilities industry. First, the rivalry among existing competitors is moderately strong due to the competition to obtain new exclusive water distribution rights agreements and to acquire other firms in the industry. Second, the threat of new entrants is relatively weak because low industry growth and large initial capital requirements, along with heavy government regulation, make this industry relatively unattractive to enter. Third, the threat of firms in other industries offering substitute products has very little effect on this industry due to water being a necessary and irreplaceable commodity. Fourth, since relatively few suppliers make the water pipes and purification equipment that are needed in this industry, supplier bargaining power is a moderate force. Fifth, although the number of consumers of water is very large, and they are very knowledgeable about the product, heavy government regulation reduces the strength of buyer bargaining power to moderate. Finally, the level of complementary forces is very strong, as local governments heavily regulate prices, distribution coverage area limits and requirements for completing mergers and acquisitions. However, as a whole, the threat of downward potential on profitability potential in the water utilities industry is relatively weak. A complete analysis of each of the five forces, along with an assessment of their collective strength and potential strategies to overcome these forces, can be found in Appendix O.

APPENDIX D: RECOMMENDATIONS SECTION FOR PROJECT B

RECOMMENDATIONS

The recommendations section will take the most critical issues found in the SWOT and TOWS analyses of Artesian Resources Corporation to determine two strategic recommendations that would best within its external and internal environments. Implementation and execution plans will be presented for each recommendation along with its impact on major stakeholders. Finally, the ways in which the recommendations help to improve the alignment of Artesian will be discussed.

Recommendations

As shown in Appendix AD, there are two major strategic recommendations that Artesian can implement to improve its long-term growth potential. First, the firm should create a grassroots water conservation program in every community that Artesian services to care for the environment while improving the firm's image and reputation. This recommendation would satisfy the desires of environmental groups while creating a sense of purpose and pride within the individual communities. The knowledge and expertise of the marketing department would be utilized to improve the long-term image and reputation of the firm. This strategy would be implemented in all geographic areas within the next year following six months of program design and preparation.

Also, Artesian should acquire smaller water distribution companies with newer infrastructure to continue to grow and expand the firm. This recommendation would allow the firm to grow while improving its distribution capabilities and efficiency. The expertise of the engineering department would be the primary human resource that is needed, while financial capital and managerial expertise will also need to be provided. This will allow the long-term efficiency of water distribution to be significantly enhanced. The time frame for this recommendation is 1-3 years, and the new infrastructure will be utilized upon the completion of each purchase.

Implementation and Execution Plans

As detailed in Appendix AE, there are several steps to each recommendation that must be followed in order to ensure success. The grassroots conservation campaign entails six steps. First, the budget for the program must be determined. Second, each subsidiary must speak with its customers to determine their level of interest and desires for the program. Third, the marketing department will discuss and synthesize these ideas to determine their merit and feasibility. Fourth, the marketing department will work with the top management team to craft a simple, standardized implementation program. Next, the program will be presented to the individual subsidiaries and an incentive program based on participation will be created to facilitate its success. Finally, a six-month performance review will be conducted to determine its success and make changes to improve the future of the program.

There are also six steps to implement the recommendation of acquiring smaller water distribution companies with newer infrastructure. First, the amount of available capital and potential sources for obtaining additional capital must be determined. Second, the strengths and weaknesses of acquiring specific individual companies must be assessed, which includes their geographic coverage areas and distribution infrastructure. Third, Artesian must enter into purchase agreements with companies that possess the best possible qualities. Fourth, the engineering team must assess the purchased infrastructure

to determine how best to integrate it into the existing system. Next, any needed upgrades and other logistical concerns must be addressed to ensure a seamless transition to the new infrastructure. Finally, the performance of the new infrastructure must be assessed to determine what upgrades can be made to further improve future performance.

Impact on Major Stakeholders

As discussed in Appendix AF, all major stakeholders in the firm will benefit from the successful implementation of these recommendations. For the grassroots program recommendation, the stockholders will experience some short-term losses but will benefit from the improvement in company image. The employees will need to be enthusiastic and supportive of the new program and provide feedback to further improve it. The customers may be reluctant to make the necessary lifestyle changes to conserve water, but most are expected to become more eager to participate in the program. Finally, the community will be very supportive of the firm and its desire to foster a sense of community and conserve the environment for their children.

The recommendation to acquire smaller water distribution companies will also have a predominantly positive impact on all stakeholders. The stockholders may be skeptical to take on additional debt in the beginning, but will support the continued long-term growth plan of the firm. The employees may not appreciate the extra workload involved with merging companies, but will appreciate the added job security from the firm becoming stronger. The customers will likely not experience many impacts due to strict government price regulations. Finally, the community will continue to view Artesian positively as long as they continue to promote their water conservation programs.

Improvement in Alignment

These recommendations will improve the alignment and future success of Artesian Resources Corporation in several ways. First, both recommendations will move the firm closer to its long-term shared value of becoming an industry leader in water distribution while caring for the environment. Second, the additional staff acquired in the mergers will help to expand the wide variety of skills and systems that Artesian already possesses. Third, the organizational structure will become stronger by continuing to decentralize the responsibilities of implementing the conservation program to the management teams of each individual subsidiary. Finally, promoting environmental causes will continue to be an important part of the organizational style and culture at Artesian for the foreseeable future.