A Dual Perspective in Leadership and Decision Making Through a Distance Learning Simulated City

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Abstract

This article was designed to provide an in-depth perspective of a virtual simulated city utilized in a doctoral program to engage learners in the critical elements of risk taking and decision making. The distance learning course promotes critical thinking and real-world application within a safe and artificial environment. Students' collaborative efforts created a mission and vision to base their decisions for the future landscape of the city. This simulation hones effective leadership skills in a distance learning platform. Two perspectives from both student and faculty illustrate the effectiveness of group dynamics, communication, collaboration and leadership used in a systems thinking approach.

Keywords: Simulation, Distance Learning, Decision Making, Leadership, Learning Organization, Communication, Change, Collaboration, Risk Taking, Real-World Application, Vision, Mission

Overview of Simulations

Simulations have been designed and used by personnel from many organizational structures. There are simulations designed to engage learners to give them experiences in areas of flight, driving, jobs, games, nursing, medicine and decision making. Rader, Rader and Riel (2014) examined experiences of teachers who were introduced to 21st century learning tools, including simulation laboratory experiences, avatar classrooms and video analysis. The simulation portion of the Rader et al. study was conducted at the University of Kentucky's Medical Learning Center. Simulations are used to give individuals an experience to transfer knowledge and understanding to apply in real-world applications. Peters and Vissers (2004: page 75) commented that simulations are designed for training and education, giving participants an "artificial environment that resembles a specific real-life situation." The simulation instruction can be generic or specific, providing participants with an experience and an opportunity to create a better situation and/or program at work.

Simulations assist individuals to experience the realities of an organizational structure by reading data and scenarios, and by communicating and collaborating with team members. Not all professional training gives individuals the tools needed to be prepared for real world experiences.

With an increase in technology and distance learning, simulations have been implemented in many college-university curricula.

Jeffries (2008: page 70) stated the importance of simulations, which has increased dramatically since the late 1990s, is used "as a teaching-learning intervention in nursing curricula." Jeffries contended that nurses need more than just typical theory classes, but innovative methods of transferring knowledge in the clinical environment. Simulations are also designed to create a non-threatening environment for individuals and provide experiential learning through means of role playing and collaboration between individuals (Rader, Rader and Riel, 2014). Such collaboration provokes high-level thinking, problem solving, decision making and analysis of data.

Technological changes have revolutionized education. There is an increase in enrollment of students and classes geared to the continuing education student. Digitized learning opportunities enhance traditional teaching methods (Altbach, Gumport and Berdahl, 2011); therefore, instructors can expose students to more information and course content. Such material is more interactive with the tools such as e-mails, chat rooms, discussion boards and Internet conferences. Online teaching and distance education can provide new and creative opportunities for experiential learning.

Competency-based curriculum is another reason technology instructional material is appropriate, which caters to the individual, rather than lecture to the mass. Peppers and Rogers (1999) claimed technology makes it possible to market to the individual; and by using technology, companies can use customization to listen to individual needs. Morrison, Ross, Kalman and Kemp (2013) claimed that technology-based instruction provides benefits over traditional teacher-led instruction. Distance education and online courses are competency based and can reach a greater number of people, which can save time and money.

Current technological trends in higher education involve online learning, which is transforming the face of higher education. Kolowich (2013) conducted an online survey to 184 professors teaching in an online format; of the 103 respondents, it was found that almost half believed the online courses to be as challenging as the traditional mode of instruction. Challenging students creates critical thinking, providing them the opportunity to apply in a real-world context. Prior to the course, one-third of the professors were leery; after completion, more than 90% were satisfied. Professors from elite institutions cited four reasons for online involvement: altruism, professional motivation, global reach and improvement in teaching methodology. In a comparison of learning outcomes for online students versus traditional students, professors are finding that traditional assessment practices need to be challenged. Dias and Diniz (2014) claimed that technological systems can be effective in blended learning, which combine face-to-face and online learning, but should include mediating tools that support interaction, collaboration, communication and sharing of information. Leadership necessitates a team player who is open and not afraid to jump in. In a survey of business executives, Robles (2012) found 100% of the executives indicated that integrity and communication were very important, and over half believe interpersonal skills were extremely important. Robles conjectured leaders need to communicate effectively, get along with others, embrace teamwork, take initiative, have high work ethic and portray professionalism.

Morrison et al. (2013) delineated five types of computer-based instruction: (a) drill-and-practices, (b) tutorials, (c) simulations, (d) games and (e) hypermedia. They explained drill-and-practice to be useful in practice of exposed content. Tutorials are utilized for the presentation of new material even without support from an instructor. They can provide interactive information and give additional explanation or remediation based on the responses from the learners. The simulations are based on a mathematical model (Morrison et al., 2013) that provides a real-world application within a safe and artificial environment where the learner can practice decision making and risk taking skills.

Distance instruction should include materials that engage the learner to bridge the gap between previous known content and new content. By using audio and video technology to conduct class in distance instruction, many domains (e.g., cognitive, social) can be reached (Morrison et al., 2013). Changing face-to-face courses to online-learning environments requires effort and resources, as hybrid instruction is a solution for active, self-directed learning opportunities with added flexibility (Garnham and Kaleta, 2002; Wichadee, 2013). Hybrid instruction blends technology-based asynchronous teaching methods and traditional teaching methods, resulting in greater student control of learning and an increase in interaction and cognitive engagement (Allen and Seaman, 2006; Wichadee, 2013).

Roberts (2008) stated that competition and consumer demand has increased technology in higher education, but that it involves more than installing a product. Information and Communication Technologies tools and instructional strategies can be used to support collaborative learning activities in distance education to create a learning culture for the individual learner. This will encourage a comprehensive, constructive and global mindset (Dias and Diniz, 2014). The rapid advancement of technology will require further development of tools and strategies in computer-assisted learning activities. Roberts outlined a strategic change process in online courses which includes strategic analysis, development, and plan design and implementation. This implementation depends upon factors like resources, organizational culture and faculty readiness.

Simulation in a Distance Learning Platform

Vision, Change and Communication

The simulated city in this distance learning course at Nova Southeastern University, Abraham S. Fischler School of Education, is taught via online learning, assisting students in decision making while balancing group dynamics and different styles of learning. Furthermore, students develop leadership capabilities, to include communication and collaboration. Although the design of this organization is built based on a city structure, students do not need to have a full understanding of how an actual city is operated, but rather an understanding of decision-making within any type of any organization. The city was designed to have one main entity (i.e., city council) and four sectors (i.e., community services, economic development board, education, social services). This format can be reproduced in many settings, such as a (a) bank format to include a main office and four branches, (b) retail merchandise company with a main office and four outlets, (c) hospital management corporation managing four hospitals or (d) franchise with four stores.

Although the simulation's inception was designed to meet the university's quality enhancement plan to focus on interactions between students-students and faculty-students, there was a need to make changes for continuous improvement. After the culmination of each semester, updates to the simulation were made to maintain innovation and other means of distance learning concepts. The simulation progressed through many phases of improvement with faculty collaboration and student input. The student input was based on summative evaluations given at the end of a semester; however, the best input was based on the formative evaluation approach as a work in progress during each semester. This work in progress is based on the real world of becoming a learning organization. In order for the simulation to be a successful learning paradigm, confirmative evaluation was also provided by asynchronous communication (e.g., email, text, recorded sessions, pre-recorded videos) and then by synchronous (e.g., group chats, debriefing sessions, instant messaging). Within this simulation class, participants have to create their own mission, vision and culture; deal with change; and remain committed to the decisions, while learning from one another's differing leadership styles (Maiser, 2013).

Most scholars would agree that there are many characteristics of an effective leader (Clawson, 2012; Maxwell, 2007; Northouse, 2012). An "effective" leader is not just a person with a title, but contains great qualities, such as being charismatic, inspirational and transformational.

Northouse (2012) described leadership as an interactive event rather than a linear one. Effective leadership is having visibility, accessibility and establishing connections with others through communication. An effective leader can take a *group of people* with different skills and thinking patterns to create *a productive team*. This definitely takes patience, expertise, collaboration and communication. Communication is vital for a successful team; however, it is more than sending the message, but in-depth listening to others. This is one of the first tasks all students need to be aware of while working in this simulation.

This leadership simulation course and the leadership theory course merges with the objective of helping students understand the characteristics of a confident leader, one who is comfortable internally and has no self-esteem or control issues. Similarly, good leadership entails visibility, establishment of strong connections and involvement of all members. These leaders are better listeners seeking the best ideas and input from their people, which creates a team concept. Listening to team members to find out the actual inter-workings of the organization is crucial. In order to accomplish this, one must formulate trust and rapport with others. Trust is one of the more powerful of the collection of characteristics necessary for a leader in any setting.

Organizations succeed or decline based largely on the vision and capability of their leaders. The vision, mission and value statements must be a collaborative effort and cannot be created by one-person only. In addition, people do not want just a person with legitimate power, but a leader who acts as a role model with a consistent set of core values. These core values must be created to encompass stakeholder perspectives, especially if the stakeholders are responsible for the implementation of policies aligning with the values.

The following is a summarization of visions and changes in values: It brings all people regardless of their organizational status together toward a common goal. Leaders influence others for better work performance, decision making and creating vision (Bal, Campbell, Steed and Meddings, 2008). A vision also (a) provides organizational mapping, (b) sets a course and (c) clearly and concisely conveys the direction of the organization. Values can change due to a new vision and mission statement, which is based on the decision making. The information learned from the seminar class, as well as personal experiences and expertise, will create a theoretical framework for the simulation. In Period 1 of the simulation, teams within each sector and the city council must create a mission and vision; these decisions will help guide students for a successful end result. During any of the six periods, if a team determines their decisions do not align with the mission, the must collaborate, define their rationale and overcome any differences of opinions to make changes. This is the same procedure if there is incongruence with the vision and organizational values. Periods are considered to be a simulated year as to align with the real world.

Change is not new; it takes time and long-term commitment to any organization. What affects people and organizations so dramatically is not necessarily the change, but the rapid rate of change. As the rate of change increases, people will have to increase their willingness and ability to adapt. There are several characteristics of managing change:

1. Create the reality for the future-vision;
2. Value input;
3. Place the right leader in place;
4. Responsive to change . . . cope and accept change;
5. Able to innovate, acquire and apply knowledge;
6. Collaborate and communicate;
7. Build a learning culture;
8. Overcome fear and welcome change;
9. Strengthen missions and goals; and
10. Change mindsets and behaviors to move forward.

Individuals who lead change need to anticipate the need for leading productive change. Individuals should know that change is situational, for example a new person, new supervisor, new building and new policy. Change is considered an external factor, whereas the transition is an internal factor. Transition is the process individuals go through to come to terms with the new situation. This is evident in the leadership simulation course as students have to grasp this new concept and course design, compared to the traditional online-blended format where assignments and blogs are submitted and acknowledged.

Throughout the semester, change occurs in the simulation. Students learn about each team member's characteristics and develop an understanding to lead through change. Change can either be positive or negative. Team members feel successful and validated when change is positive. Conversely, when change is negative, people begin placing blame on others resisting the change. The scenarios for every period within the simulation illustrate many events and projects that cause change to the simulated city. Students must understand this concept of constant change, learn from it, survive from it and yet thrive within this environment. When people become resistant to change, leaders and team members must build a cohesive group, building individual relationships to show personal commitment to help them through the organizational shift of change. Leaders influence others to obtain better performance, their superiors for decisions and stakeholders to promote the organization (Bal, Campbell, Steed and Meddings, 2008).When stakeholders feel engaged and committed to the organizational mission and vision, they feel respected, understood and valued. This is the positive side of leading change; on the other hand, resistance to leading change results in organizational sabotage. Team members and leaders can make a difference by teaching, inspiring, motivating and encouraging others to take risks.

The simulation is set up for this process because it is an artificial environment to push the limits of decisions, while still being focused to the organizational goals. The simulation has two text box areas to settle disputes: differences of opinions and rationales for decisions.

Resistance is a natural component of change. Whenever introducing change, it is a typical reaction to resist change rather than welcome it. People tend to become comfortable (e.g., complacent, conservative) with current infrastructures instead of taking risks in the implementation of a new program, policy or decision. Subsequently, organizations must involve all stakeholders early in the change process to include team members in recognition of individual's worth, contribution and growth. Changes will then become accepted and generate a positive interest. In the simulation, team participation is a requirement and learned behavior. Once the semester starts, students must began their journey with the familiarization phase of the simulation and all course expectations. In addition, they must start early in the communication phase and learn each other's strengths and areas to develop, and be committed to the mission and vision they developed as a team; this will help generate that positive interest. McNally (1990) stated that when people are committed to change, they will strive for improvement.

Learning Organization

In this course, students learn about the characteristics of a learning organization and how to build commitment, create a vision (i.e., future landscape) and manage change. This is important to understand the alignment and the relevance of a simulated organization to our surrounding world. The systems thinking approach developed by Senge (1990) is based upon how learning organizations perceive their environment and how individual components contribute or tie to a main entity. Systems thinking is not linear, but more about interrelationships (Deklotz, 2013). A system is a delicate balance, if one step is removed or becomes problematic, it would affect the outcome and complexities in system behavior. Meadows advised, "Before you charge in to make things better, pay attention to the value of what's already there" (2008: page 178).

Thinking systems is a cyclical process and consists of a framework of parts and the relationships between the parts. It cannot be understood in isolation, and can be applied in any context. Senge (2010), Aron (2010) and Meadows (2008) claimed that thinking systems is a complex process where all parts interact together. Aron explained the complexity theory as a loose set of concepts; and is an approach to looking at systems that focus on the whole rather than individual parts. The feedback process critically shapes how the change happens; the whole system does not equal the sum of parts, and can be more than the sum of its parts (Aron, 2010; Meadows, 2008). Aron depicted a cow as a system, but when the cow was dissected in half, it did not create two systems. Thinking systems can be utilized in a multitude of disciplines and across all age categories; Senge provided an example of kindergarten children thinking in systems as they analyzed their playground play. In the simulation course, the sectors are interrelated to create the system.

Meadows (2008) used interludes to provide meaningful connections between theory and practice, allowing any person to apply systems thinking to real world scenarios. Meadows personal and global problem solving introduced the application of systems thinking skills to a practical setting by explaining how war, hunger, poverty and environmental degradation are system failures and cannot be solved by finding only one part in isolation from others. Meadows explained the dynamic nature of complex systems, provided explanations of how systems work and what could happen if there is a feedback delay. Meadows analyzed systems to show a system structure and to explore system behavior for scenarios. Negative and positive feedback loops demonstrated and examined the ability of people and organizations to accomplish tasks, deceasing as the number of tasks rises.

This simulation course teaches students this concept of systems thinking. There is a myriad of characteristics and definitions of a learning organization (see Table 1) that have been compiled from other literature (Kline and Saunders, 1998; Marquardt, 2011; Reason, 2010).

Table 1: The Characteristics of a Learning Organization
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Continually re-perceive the world and its relationships

Create a reality for the future–vision

Value output

Place the right leader in place

Defuse any conflict

Accountability for actions

Responsive to change; cope and accept change

Able to innovate, acquire and apply knowledge

Collaborate and communicate

Incorporate and encourage teaching and learning

Build a learning culture

Change mindsets and behaviors to move forward

Provide ongoing analysis to improve

Encourage systems thinking

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Senge's framework continues to be utilized in today's organizations. While there is more research on learning organizations, never discount this philosophy or design (Deklotz, 2013; Frisby, 2012; Maiser, 2013). Senge (1990) covered five disciplines that are important to any organization, agency, or institution to become successful as a learning organization. These disciplines are (a) personal mastery, (b) mental models, (c) shared vision, (d) team learning and (e) systems thinking. Personal mastery helps those who want to expand their potential while "never" thinking the process will end. These lifelong learners are determined to create new and innovative thoughts on how to better themselves so their organization will also thrive.

For the students who are enrolled in the leadership simulation course, they must look holistically at the City of Centerville; in addition, they must simultaneously make decisions based on what is best for their individual sector (i.e., community service, education, economic development, social services). This online experience teaches the students that whether it is a city structure or any other organizational structure, they must see how all independent sub-structures have specific and individualized characteristics in a problem-solving format, but also how they all come together and impact one another. An individual should understand what is best for the entire organization to include commitment, leadership and the culture (Maiser, 2013). The discipline of mental models is based on how one compromises through reflection, searches for results, and exposes thinking by influencing other stakeholders (Senge, 1990).

The aforementioned disciplines are considered to be individual processes as compared to shared vision and team learning. Shared vision entails a group collectively seeking a vision, while team learning facilitates building collective capabilities (Kouzes and Posner, 2012). Senge (1990) stated the fifth discipline "systems thinking" is designed to connect the four together. Systems thinking encompass participation and collaboration at all levels of an organization where there is a common understanding of a system. The discipline helps individuals to predict changing systems more effectively and to act more in tune with the longer processes of the organizations in which people are connected. In this distance learning format, students have to collaborate with their colleagues online using many means of communication: university learning management systems, outside web-conference meetings, exchange of documents via distance learning and the use of the simulation data screens. These screens are designed for students to enter both quantitative and qualitative information. In addition to the date entry, during team decision making, this course helps students manage group dynamics and experience various leadership and learning styles. Since students are making decisions and observing change occurring over time (i.e., 6 simulated years), they learn how to be futurists to prepare for the extreme future. This helps students create a vision of a future landscape throughout the 16-week semester. Students are motivated to learn for intrinsic and continuous improvement, and be inspired to learn through the power of influence rather than the power of control. Influence is needed for an effective team structure (Dawson, 2011; Levi, 2014).

Participation and Team Building

At the end of every simulated year (i.e., two-week period), faculty review the students' decision-making data, submit comments and then hold a debriefing session with all students to review the previous simulated year, discuss future scenarios and leave time for questions and answers. Northouse (2012) describes a great organization as a team where leaders cultivate collaboration, openness, and a sense of responsibility and focus strategically on tasks in order to achieve goals. The collaboration in these debriefing sessions should be held immediately after the participants' experiences to discuss any instructor feedback and/or direction for another phase of the simulation (Jeffries, 2005; Powers and Kirkpatrick, 2012). In addition, the students who held a dual role as a sector and city council representative have to complete a student-to-faculty checklist regarding relationship with city council team members, management skills and abilities, fiscal management, and effective leadership. This participation exercise illustrates real-world applications as to how organizational team leaders meet with upper level organizational leaders.

This checklist is based primarily on whether the student prepared each section well or needed improvement. There is one section to rate each team member on a Likert scale of 1 to 5: never = 1, sometimes = 2, whenever needed = 3, almost always = 4 and always = 5. These areas are based on (a) communicates on a regular basis, (b) attends meetings, (c) submits documents with critical input and (d) actively participates in group discussions. Students must also submit a short qualitative comment to support their scores. Once this checklist is completed and submitted, the city council representatives are required to have a debriefing session with the professor to review their experience. These debriefing sessions align with real-world procedures to clarify any missed information and to build an open-door communication process.

> A debriefing activity reinforces the positive aspects of the experience and encourages reflective learning, which allows the participant to link theory to practice and research, think critically, and discuss how to intervene professionally in very complex situations (Jeffries, 2005: page 101).

These debriefing sessions are 18% of the participation grade; the other 36% is based on participation within the assigned sectors.

At the end of every period, each student must submit a student-student accountability form, which is based on the initial involvement and accountability of all team members. The students score them self and their team members on a Likert scale from 0 to 2: never = 0, sometime = 1 and always = 2. The three areas consist (a) communicates on a regular basis and contributes to a collaborative team environment as evidence by the Blackboard discussion board rooms and Collaborate live sessions; (b) attends meetings and actively participates in group discussions as evidence by the Blackboard discussion board rooms and Collaborate live sessions and (c) accepts responsibility for assigned tasks, completes and submits work by the team's timeline as evidence by the Blackboard discussion board rooms and simulation data entry. Students must also submit a short qualitative comment to support their scores. Each faculty member has a section of the form to finalize the participation scores based on each student's participation in the data entry areas.

When fostering teamwork among organizational members, the behavior each person models, the goals and expectations that are met, and the feedback delivered all set the tone for team building. One principle is showing respect for one another; treating people with common courtesy creates a positive environment to work. It is very important to have referent power, which shows integrity, consistent behavior, and a consistent set of values. Another principle is to cooperate with others, rather than compete with them. By using cooperative language (e.g., us, we, our) when referring to goals and responsibilities, people can be convinced that they are part of the team. Also, each person's importance to the team can be established by publicly praising team member's expertise and accomplishments. In addition, by recognizing and rewarding team efforts, a team's sense of togetherness is strengthened. Everyone needs to understand the overall goals of the organization and/or the department and each person's responsibility for achieving it. The final principle is to foster open and honest communication. This is important to develop amongst team members and essential to build a strong relationship. Without it, members-employees lose focus, loyalty to the group weakens, and conflicts arrive.

As with other teamwork principles, a tone must be set: Model the behavior you want to see by being open and honest with members in three ways: (a) deliver timely, specific praise; (b) offer constructive criticism and (c) resolve conflicts between stakeholders.

Another important task for a leader of an organization is to have an authentic and effective style of leadership that empowers and inspires others. Administrators at all levels of an organization need to understand the human side of their organization. An organization's vision and mission can be and will be jeopardized if leaders do not know how to motivate and mobilize their employees. Successful leaders know that they must invest in and utilize the talents of their employees because the employees are the organization's most vital resources. Leaders need to maximize their employee's creativity and commitment to organizational goals.

To be a great role model, a leader needs to identify the correct use of power when interacting with his or her employees and others. Power must be useful, positive and creative rather than abusive. Power performers know they cannot reach their full potential if their lives are controlled by others. Instead, they understand that they must learn the skills necessary to influence others (Dawson, 2011). Armed with these skills, impediments to their goals will not be a concern. A skilled leader will know how to convince others to adopt his or her way of thinking, regardless of the circumstances. A person with the most power of influence will gain the most in negotiations.

In summary, the type of leadership needed to ensure success depends on the situation and how well the leader can apply theory to varying situations. The leader must make an effective decision to solve problems and handle leadership situations. The relationship between the leader and employee is essential to accomplishing a specific task. If the employee decides not to follow, it really does not matter what the leader thinks, what the task is, how much time is involved, or what the circumstances are. The leader must know the style that is appropriate in relating to his or her employees, and when it is necessary to shift the leadership style for better performance and results. If the performance is increasing, it would be appropriate for leaders to shift their style toward a more delegative and participative style. The delegative style is indicative that task-relevant readiness is increasing. If the performance results are declining, the leaders should shift their leadership style to a telling style, known as a directive style.

An effective leader emphasizes changing one's behavior rather than criticizing one's lack of knowledge. By identifying important governing principles, guiding visions, strong values, organizational beliefs and clear communication, a leader can create a healthy organization embodying the values of trust, honesty, integrity and teamwork. If a leader recognizes that employees are an organization's most vital resources, he or she can incorporate appropriate leadership styles to exploit employee talents, ideas and energy to the mutual benefit of all stakeholders.

Decision Making Versus Budgeting

There is a great deal of budget management and constructing proposals, but this is *not a budget* management course. It is a course designed to simulate real-life leadership situations in a problem-based, safe environment. It does involve numbers, percentages and levels of service to help guide a student while making decisions. Each portion of the budget that has a "level" assigned has to be funded. The higher the level assigned, the more funding it will need and the reverse is true for lower values. Other areas are based on "percentages," not exact amounts. However, if this was a *true* budget course, then the structure of the course would have every line item broken down to every expenditure and revenue. Two of the sectors (i.e., social services, education) have salaries and equipment as part of the budget allocations. Teachers' yearly salaries range from $48,000 to $51,000 in period one and peak at $54,000 to $57,000 in period six. Law enforcement and fire rescue yearly salaries range from $56,000 to $60,000 in period one and peak at $63,000 to $67,000 in period six. These salaries are only based on a fixed number, compared to a true budget course that would have line items of benefits, insurance, taxes and retirement deductions. The schools would have included every area of food services, transportation and other operating expenses; the infrastructure would have detailed information on roads, bridges, waterways, sewage, electricity and power plants to name several.

During online communication sessions between faculty and students, the structure of the simulation is discussed in detail. In addition, it is of utmost importance that students review each video (i.e., city council and all sectors) located in the Blackboard learning management system. These short 5 to 6 minute videos were designed to familiarize the students with the format of each sector and city council. The videos illustrate the decision screens and how students are to input the data. The students are given written scenarios to make proposed decisions, with the goal of refining decisions at each meeting; the numbers and percentages that are available are only used to help make the decisions. The simulation has another link to help students formulate their decisions.

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A proposal screen, based on constant data changes, was implemented to show three budget numbers: allocated, used and available.

In the simulation interface, students will enter quantitative data (numbers) under the *decisions tab*; and qualitative data under the *news write-up* and *teamwork tabs* (e.g., rationale for decisions, responsibilities, difference of opinions). Each sector has different input data points, which is based upon the roles and responsibilities that make them specific. Community services members make decisions on investment in infrastructure and maintenance, public transportation, utilities, library and parks and recreation. In the economic development board, decisions are made on budget allocations for downtown development, marketing and incentives, training and outreach programs and business services. In addition, when city council sells land, it is the responsibility of the economic development team to zone the land for residential or commercial use. In the education sector, team members have to input data based on teacher count in the K-12 system, as well as service levels for professional development, continuing education and the quality of the school's infrastructure. Additional decisions for higher education are based on partnership projects and outreach programs; this has a direct impact with the economic development board. The social services team must make budgetary allocations for law enforcement and fire rescue staff, equipment and investments in the departments, as well as disaster response and other social agencies. When the city council representatives meet, they must make budget allocations for each sector, select a project for city development, sell land for land development and determine the environmental policies with standards for levels of pollution, competitiveness of large business, profitability of small business and cost of living.

As previously mentioned, the input for qualitative data is based upon four categories: The newspaper write up, rationale for decisions, responsibilities and difference of opinions. Every closing period, all sector team members and city council representatives must submit this data. The newspaper write-up is to inform the residents of the City of Centerville about what the sector members and city councils have done for the past period (a year in actuality). This creates open communication and transparency to the stakeholders.

The course format is structured as full-group participation and a need for accountability where all students contribute equally. The rationale for students' decisions is to benefit the growth and development of each sector and city council; this is the underlying basis for all decisions. Since all decisions are based on the mission, students should stay true to the mission. If there is a need to change directions in future periods, then students must change the mission. At times, there will be opposing perspectives where students must professionally resolve the issues. This will relate to the real-world working within boundaries, communicating and collaborating, and making decisions to accomplish all planned tasks. Although most individuals do not agree with others at times, students are taught to manage group dynamics, work cooperatively, and develop teamwork within this course. Having different opinions can strengthen dialogue and learning, but students must support their decisions by justifying it in writing.

Taking a Risk

Mistakes are great; one characteristic of leadership is the ability to take a risk, make a mistake, learn from it and move forward. In the simulation course, students are told to "push the envelope" and take risks when making decisions within the simulation. If students make safe decisions, they become stagnant and complacent. This simulation is part of an online gaming theory as students play many roles while working in a collaborative environment while making decisions for the betterment of the organization.

However, students need to take risks and make mistakes so they can improve in the next phase of the decision-making process. Based upon this safe online experience, students should eliminate competitiveness as they must learn how to work cooperatively as a team. Competition in the workplace has its advantages and disadvantages. However, in this online structure, competition can lead to stress and anxiety in the learning process (Jeffries, 2005), resulting in students becoming conservative in their decision making and problem solving.

Another key issue is to *learn from one's mistakes*. Some people use metaphors incorrectly such as "practice makes perfect" which is incorrect, "*perfect* practice makes perfect." If a person continues to practice something over and over, but it is not perfect, they are practicing the wrong thing. This is like management versus leadership. Management climbs a ladder and claims success; a leader places the ladder strategically on the correct (perfect) surface, and then climbs it. *Which would you do?* Moving too rapidly and not absorbing or learning the major points can also cause mistakes.

Predictions can work if we have a better understanding of probability and uncertainty; however, be aware that overconfidence can lead to failure. Silver (2012: DC 2) states, "The more humility we have about our ability to make predictions, and the more we are willing to learn from our mistakes, the more we can turn information into knowledge and data into foresight."

Advice and Comments

Throughout each semester, students are given the autonomy to make decisions without the interference of faculty. The reason for this format is to delegate the power of decision making to the students. Although they are given lectures from faculty and learning the theories of leadership in the co-requisite leadership course, students bring their personal experiences to the simulation. From the onset, students enter the familiarization week (i.e., week one) where they must become comfortable with the understanding of the course structure and requirements, while navigating the simulation. For this familiarization week, students can open all screens, read all scenarios and make changes to the data. During this week, faculty schedule recorded online sessions to give advice, yet have open dialogue to clarify any questions or concerns.

In addition to the introduction online live sessions, held in Blackboard Collaborate, there is a link in the learning management system titled *Announcements and Daily Mini-Lectures*. In this section, the professor uploads countless mini-lectures on advice from period to period. Professors are constantly reviewing the sector and city council teams on their progress form period to period. From these observations, professors give input to steer the students in a direction to increase the quality of life in the simulated city. Students can choose whether to implement the advice or not, since this course is about decision making and risk taking.

At the closing of each period, the input from all sectors and city council representatives gets compiled and produces an output. This output is based on the simulation design of algorithms and various data sets, and the input from all sectors and city councils of other scheduled simulation courses for that specific semester. This aligns with real-world implications as adjoining cities impact one another. Once the data is analyzed, faculty write a final report for each period, outlining every decision based on the simulation screens. These reports are then posted in the simulation as well as the announcements and daily mini-lectures to be reviewed by the students; this prepares them for the end of the period debriefing sessions with faculty and student participation.

Assignments and Relevance

The first assignment for this course is a *Familiarization Paper*, demonstrating the participants' knowledge of the course structure and the simulation during the first week of the semester. Students have to explain what they have learned by reviewing the course expectations, assignments, participation requirements, team building and communication and the simulation. The course content area has numerous videos, presentations, and documents to help students of various learning styles understand the concepts and able to apply them throughout the semester as well as in their profession.

The second assignment focuses on the students' ability to grasp how decision making in a simulated city aligns with their real-world environment. Simulations are generally used to provide a problem-based experience to engage people in addressing real-world issues. As a result of participation in the Leadership Simulation course, students will acquire a leadership skill set that can be transferred to their work place or other organizational structures. The Leadership Simulation course affords the opportunity to use high level applied critical thinking skills in a collaborative environment. This assignment is designed as a field project to provide an opportunity to apply the lessons learned in this course to a real life experience.

Students will create a manuscript based upon two areas: (a) the organization in which they work and (b) the town or city where they reside. In the writing of this paper, reflection of the simulation and how it relates (aligns or does not align) to the decision making and operations of the workplace and the town or city, is paramount. Although this course simulation deals with challenges that a city would face, it also shows how any organizational structure operates based upon adverse situations or decisions. Conducting independent research is part of the requirements to support the students' perspectives, such as numerous scholarly articles and interviews of two key leaders of the workplace and the city of domicile. A key leader can be anyone, and does not need a specific title, as the determination is based on the ability to answer the interview questions.

The focus of this paper should examine how individuals and teams (a) make decisions, (b) problem solve, (c) collaborate within these two organizational structures and (d) a conclusion to discuss the differences and/or similarities between how the students' workplace and city handles these topics.

Student Perspective of Online Learning in a Simulation

A simulation offers a working environment for future leaders to develop and practice strategic leadership by problem solving and communicating within a diverse group. Centerville is a community set in the southeast that mirrors any current city. Within the Centerville simulation, the city council projected a mission statement to promote Centerville as a global center for education, business, tourists and residents. Within the class simulation, the vision of Centerville values a progressive atmosphere that ensures cleanliness, safety and security for all residents. Meadows (2008) used interludes to provide meaningful connections between theory and practice, allowing any person to apply systems thinking to real world scenarios. A leadership simulation offers experience in city decision making where students are given opportunities to serve on city council representative. At times, students are forced to lead when clear answers are not present, and both the council members and sector members relied heavily on one another during this initial period of instability. This coagulated a strong sense of teamwork amongst the members, which has been maintained through the successive two periods. Creating agendas, maintaining rigorous order during meetings and working toward goals of a greater good provided detailed insight to the workings of an actual city. This simulation instilled an awareness of city budgets, disbursement of funds and land within the city, decision making and communication. In the simulation, there is an emphasis on the reduction of costs while maintaining a high quality of life for its citizens. The simulation relates to any organization when considering decision making, collaboration and leadership styles. Leaders fulfill the vision and mission by anticipating future challenges of an organization. Just like the city council of any city, the simulation consists of challenges and adversity and forces a diverse group of leaders to collaborate and make effective decisions.

Sectors. The team environment must work cooperatively, listen to one another and offer encouragement and support. Each member should be a team player, and develop a routine of weekly meetings with consistent attendance, clear agendas and strict adherence to topics and deadlines. At the start of the simulation, students were unsure of the simulation process; consequently, members were fearful of formulating decisions. But as the semester progressed and comfort was gained, members became more vocal. Each member's strengths became obvious. In a simulation, it is important to be risk-takers not opposed to new ideas or negotiations.

The playing field is leveled in a simulation, and each member enters the simulation with the same level of knowledge and experience, there was greater collaboration amongst members. In this first period, all members were able to contribute valid points and offer unique insight that other members may not have considered. As novice simulation decision makers, team members acted on instinct rather than knowledge or experience, which could have serious consequences. But on the other hand, it could allow someone to effectively listen to the concerns, suggestions and ideas from others.

Each period brought forth different experiences based on the role students served. As students gained familiarity with the simulation, each member became confident during the proceedings, which could cause a pull for control between members. Flexibility is important in a team setting. With the gain of simulation expertise, everyone was able to conceptualize the future impact of city council decisions in each sector and within the city.

Prior to city council meetings, the sectors discussed upcoming events and projects to support, goals for the board and plans for the city's economic growth. The city council representative would then communicate requests at the city council meeting, and would return with updates. City council minutes were also regularly posted on the discussion board, so all city members were aware of decisions made. Collaboration and a sense of responsibility between team members helped to achieve goals (Northouse, 2012). From the onset, sectors agree to collectively take risks throughout the simulation, remain open to other opinions, and be proactive in formulating decisions. Within a group of novice members, there was more willingness to take risks. As members gained more experience within the simulation, there was less willingness to take risks. The conservative decision makers who supported a stable project and minimal changes to the budget conceptualized the future impact of city council decisions in each sector and in the city.Clawson (2012) stated that the Leadership Point of View includes seeing what needs to be done, understanding all angles and having the courage to take action. Effective leaders are futurists that create visions to drive individual and organizational success (Hoyle, 2007).

Goffee and Jones (2006) ascertained leaders must find ways to engage people to commit to organizational goals. Members of the sector and city council representatives were committed to the overall success of all sectors within the city.

Building trusting relationships while maintaining a willingness and determination to work with others helps a team work better together. Leadership efficacy is based on a high level of emotional intelligence; Clawson (2012) delineated emotional intelligence to include self-awareness, management of emotions, empathy, and social skills. When a leader is aware of emotions, it is more possible to manage emotions. Clawson named the ability to recognize the emotions of others to be a valuable interpersonal skill. Rather than identifying the emotions through various non-verbal cues like facial expressions, eye movements, body posture and body language; in an online atmosphere, one must retrain social cognitive skills, accept the change and adapt to it. There was a delicate balance between effectively listening to others before responding and avoiding a long response time, which could indicate lack of involvement.

In the simulation, there was a diverse culture within a virtual environment, and the belief system varied greatly where a collaboration of ideas is a rich cauldron. Many ages, cultures and languages were represented.

Values, assumptions, beliefs and expectations (VABEs) impact the role within an organization. Throughout the simulation, members maintained different VABEs, which varied in strength, in each person and depending on upbringing and environmental situations. VABEs are comprised of a value belief system deeply engrained based upon personal experiences throughout our lives.

How data helped to make decisions. Record keeping is one of the primary responsibilities of members in the simulation. Detailed agendas, careful minutes and regular postings within the discussion board helped maintain accurate recording and reporting of data. Each period, sectors and city council reviewed the summaries provided by the mayor, and looked at how the numbers within the simulation affected the city. The decisions for projects depended not only on current trends, but also were affected by forecasts of future events. Maintaining an initial vision, mission statement, and continued strategic planning also aided decision making.

Trends that developed from period-to-period. Overall, Centerville had an increase in the quality of life index for a safe community to live and work, affected by many aspects: (a) parks and recreation, (b) income, (c) education, (d) library, (e) pollution, (f) infrastructure, (g) safety, (h) culture, (i) pollution, (j) utilities, (k) revenue, (l) health services and (m) pollution. Centerville sold land which increased funds and the infrastructure of the city, education and businesses. Business continued to grow. Centerville never had an overall city deficit, and funds were returned to city council at the end of each period. Centerville experienced a steady population growth from period-to-period as people opted to settle permanently in Centerville, evidenced by the increase of purchased homes. The careful and strategic leadership of all sectors and city council created a desirable and prosperous place to live.

References

Allen IE and Seaman J (2006) Making the Grade: Online Education in the United States. The Sloan Consortium. Retrieved from www.onlinelearningsurvey.com/reports/making-the-grade.pdf

Altbach PG, Gumport PJ and Berdahl RO (2011) *American Higher Education in the Twenty-First Century: Social, Political, and Economic Challenges*. Baltimore: The Johns Hopkins University Press.

Aron D (2010) Systems thinking, complexity theory and management. Available at: http:/p/www.youtube.com/watch?v=OqWJPSpWGyg (accessed 29 September 2014).

Bal V, Campbell M, Steed J and Meddings K (2008) A center for creative leadership research white paper: The role of power in effective leadership [White paper]. Available at: http://www.ccl.org/leadership/pdf/research/roleOfPower.pdf (accessed 21 September 2014).

Clawson J G (2012) *Level Three Leadership: Getting Below the Surface* (5th ed.). Upper Saddle River, NJ: Pearson

Dawson R (2011) *Secrets of Power Negotiating: Inside Secrets from a Master Negotiator*. Pompton Plains: The Career Press.

Deklotz PF (2013) *Scenario planning: A phenomenological examination of influence on organizational learning and decision-making in a k-12 public education system.* PhD Dissertation, Cardinal Stritch University, WI.

Dias SB and Diniz JA (2014) Towards an enhanced learning management system for blended learning in higher education incorporating distinct learners' profiles. *Educational Technology & Society* 17(1): 307+. Available at: http://go.galegroup.com/ps/i.do?id =GALE%7CA361942604&v=2.1&u=novaseu_main&it=r&p=AONE&sw=w&asid =dd83cc9eafd8c15f175c05d2e3e58170 (accessed 2 October 2014).

Frisby S (2012) *An analysis of the effects of varying levels of implementation of disciplines associated with learning organizations and student achievement at California schools with similar demographic characteristics.* EdD Dissertation, University of La Verne, CA.

Garnham C and Kaleta R (2002) Introduction to hybrid courses. *Teaching with Technology Today* 8(6). Available at: http://www.uwsa.edu/ttt/articles /garnham.htm (accessed 1 October 2014).

Goffee R and Jones G (2006) *Why Should Anyone be Led by You? What it Takes to be an Authentic Leader.* Boston: Harvard Business School.

Hoyle J (2007) *Leadership and Futuring: Making Visions Happen.* Thousand Oaks: Corwin Press.

Jeffries PR (2005) A framework for designing, implementing, and evaluating simulations used as teaching strategies in nursing. *Nursing Education Perspectives* 26(2): 96-103.

Jeffries PR (2008) Getting in S.T.E.P. with simulations: Simulations take educator preparation. *Nursing Education Perspectives* 29(2): 70-73.

Kline P and Saunders B (1998) *Ten Steps to a Learning Organization.* Salt Lake City: Great River Books.

Kolowich S (2013) The professors behind the MOOC hype. *The Chronicle of Higher Education,* Available at: http://search.proquest.com.ezproxylocal.library.nova.edu /docview/1318429971 ?accountid=6579 (accessed 2 October 2014).

Kouzes J and Posner B (2012) *The Leadership Challenge: How to Make Extraordinary Things Happen in Organizations.* San Francisco: Jossey-Bass.

Levi D (2014) *Group Dynamics for Teams.* Los Angeles: Sage.

Maiser DJ (2013) *An exploratory study of the relationship between self-directed learning and Senge's five disciplines necessary to become a learning organization: In a high-tech company.* EdD dissertation, North Carolina State University, NC.

Marquardt MJ (2011) *Building the Learning Organization: Achieving Strategic Advantage Through a Commitment to Learning* (3rd ed.). Boston: Nicholas Brealey.

Maxwell JC (2007) *The 21 Irrefutable Laws of Leadership: Follow Them and People Will Follow You.* Nashville: Thomas Nelson.

McNally D (1990) *Even Eagles Need a Push: Learning to Soar in a Changing World.* New York: Dell.

Meadows DH (2008) Thinking in systems—A primer. In: Wright D (ed) White River Junction: Chelsea Green, pp..

Morrison GR, Ross SM, Kalman HK and Kemp JE (2013) *Designing Effective Instruction.* Hoboken: John Wiley & Sons.

Peppers D and Rogers M (1999) *Enterprise One to One.* New York: Doubleday.

Peters VAM and Vissers GAN (2004) A simple classification model for debriefing simulation games. *Simulation Gaming* 35(1): 70-84. DOI: 10.1177/1046878103253719

Powers RB and Kirkpatrick K (2012) Playing with conflict: Teaching conflict resolution through simulations and games. *Simulation and Gaming* 44(1): 51-72. DOI: 10.1177/1046878112455487

Rader HJ, Rader JP and Riel DR (2014) An investigation of teacher candidate perceptions: Using 21st century tools and clinical medical model practices to teach classroom management skills. Master Thesis, Morehead State University, KY.

Reason C (2010) *Leading a Learning Organization: The Science of Working with Others.* Bloomington: Solution Tree Press.

Roberts C (2008) Implementing educational technology in higher education: A strategic approach. *The Journal of Educators Online* 5(1): 1-16.

Robles MM (2012) Executive perceptions of the top 10 soft skills needed in today's workplace. *Business Communication Quarterly* 75(4): 453-465.

Senge PM (1990) *The Fifth Discipline: The Art and Practice of the Learning Organization.* New York: Currency Doubleday.

Senge P (2010) Systems thinking in action (Conference Preview). Available at: http://www.youtube.com/watch?v=E7_-nfb3f1s&playnext=1&list   =PL1FB261F18B938AAB&index=4 (accessed 4 October 2014).

Silver N (2012) *The Signal and the Noise: Why so Many Predictions Fail – But Some Don't.* New York: Penguin Press.

Wichadee S (2013) Facilitating students' learning with hybrid instruction: A comparison among four learning styles. *Electronic Journal of Research in Educational Psychology* 11(1): 99-116.