mm joy

CHANGE SIMULATION ©2003

Explanation Paper

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Theoretical Basis

The change process is held by the MMJoY (pronounced "em-joy") Change Simulation design team, to be analogous to a journey or to mapping and charting a particular course. Like Banathy (1991), we believe the journey does not end at a destination. It is instead, peppered with milestones-the journey (change process) is cyclic or spiraling in nature. As such, throughout the design process we tried to remain true to the systemic and cyclical nature of change. We also had to constantly flesh out in our minds the differences between diffusion of innovation and the greater change process in which it is situated. We chose to focus on the entire change process instead of just a diffusion process similar to Rogers (1995). The team believed that just concentrating on the implementation of the innovation and its diffusion at that point "ignores much about the process of how people actually change" (Evans, 1996, pg. 15).

Following the ideas of Fullan (1991), Banathy (1991), Havelock & Zlotolow (1995) and Hall (1974), the model designed for this simulation activity recognizes the value and necessity for broad-based support to achieve educational change. Early on, and throughout the role-play, simulation participants are encouraged to be aware of the necessary players to effect their proposed change. Additionally, numerous opportunities exist for innovators and changes agents to solicit feedback and input on the proposed innovation. It goes without saying that the proposed innovation is based on needs identified by numerous constituents and stakeholders at the beginning of the change process. Finally, milestones are built in to consistently gauge the level of support that the innovation has.

Change Roles used in the simulation were influenced by The AMOEBA Game, formerly known as the "Diffusion of Innovations Game" (Atkisson, 2003). Elements of Rogers (1995) were also utilized in the description of change roles in the simulation. In particular, the change role titles of Early and Late Adopters as well as a focus on the important facilitating role of Change Agents. During the implementation phase (phase 5) of the simulation, these roles play out typically through their movement at different speeds toward getting comfortable and acclimated to the innovation.

Design And Development Process

With this project, we aimed to transform knowledge of an "effective" change process to a simulation game. The development process started by analyzing and synthesizing change processes through literature and group/class discussion.

First, each team member searched and analyzed information from various sources on the change process. We decided to create our own change process model, which increased the challenge and higher order learning achieved by the group. The team used some parts of different approaches, models and strategies (Adams & Adams, 1999; Dannemiller, James, & Tolchinsky, 1999; Fullan & Stiegelbauer, 1991; Reigeluth & Garfinkle, 1994) as a ground and built a relatively new change process. The change roles, stakeholder participation and the systemic nature of change are prevalent throughout the whole model for our simulation (Banathy, 1995; Carr, 1995; Carr-Chellman & Savoy, in press; Jenlink, 1995). In addition to these, *The Diffusion Simulation Game*, which is played by Indiana University students and the role plays in INSYS 586 provided great inspiration on what to include and what not to include in our simulation. The analyses

and syntheses process we worked through revealed critical elements of the change process for us.

Second, the team decided the main objectives of the simulation game. By the end of the simulation game players will:

- Learn critical elements that affect change process
- Understand the interaction of different roles involve in the change
- Understand the process of change
- Have experienced close to real-life change
- Have been actively involved and had fun

The next step, the design of the simulation game itself, was the most difficult and productive learning experience. We sought to produce a simulation game that addressed complex and interrelated objectives through compromising on numerous ideas of each team member.

From the beginning to the end of developing the simulation, the team worked hard putting forth maximum effort to gather four viewpoints into one project. Decision-making was not easy since there were numerous ideas presented for such a sophisticated product. Given these numerous ideas, conflicts and compromises were necessary and resulted in fruitful discussion and increased understanding of the complex nature of change process and the creativity necessary to translate the process through the simulation. Meetings on consecutive days helped the team remember ideas and process easily, while afternoons were breaks for our minds to digest and create more ideas. Also there were group dynamics sessions to reflect our feelings and ideas about our teamwork and make it better. To facilitate the design process of the simulation activity, notes were

taken during brainstorming sessions and were typed up and distributed by email. Group members were expected to review and edit notes for the next day's meetings. In conclusion this project included but was not exhausted by the following words: change, hard work, intensity, sophistication, creativity, analyses, syntheses, process, and roles play.

Explanation Of Simulation Game

The intended users of this simulation game are graduate level students and education practitioners who are interested in developing a better understanding of the change process in K-12 settings. The suggested number of players can vary from 10 to 20. A facilitator will facilitate the simulation game. The players will role-play using a combination of change roles (Innovator, Change Agent, Early Adopter, Mainstreamer, Late Adopter and Unbudgeable) and title roles (principal, teacher, parent, secretary, student, etc.). Each player will represent a combination of the two roles. There are six phases (desire-drive, relationships-ideas, envisioning, mapping, implementing, and refining-sustaining) that represent the flow of a change process. From Phase one to Phase six, the participants will go through a complete change process: finding a problem, arriving at an innovative solution, envisioning the solution, mapping the implementation, implementing and refining the process and sustaining the innovation in the system. In the meantime, participants will build a "change tower" which visually represents the change process. To build the change tower there are color-coded blocks of three different sizes. Each phase is coded with a different color (Blue: desire-drive, Orange: relationships-ideas, Green: envisioning, Purple: mapping, Red: implementing, Yellow: refining-sustaining) while each user's "effect size", represented by the different sized blocks

(large size has more influence while small size has the least influence). Players will lay their block for each phase when they participate in that phase. During the implementation phase (phase 5) they will move along the game board to simulate possible implementation experiences as they acclimate to the innovation. The process can be influenced positively or negatively by some unpredictable factors, which are exerted into the game by the facilitator through the use of Fate Cards. At the end of each phase, the facilitator will ask some questions for the participants to reflect upon before moving on.

Main Elements

A number of key decisions were made in the design of the change process simulation activity. The following represents some of the thinking behind core elements of the simulation.

Innovation Selection. It was decided that the innovation or change idea would ideally come from the group engaged in the simulation activity. This would serve to better engage the group due to the idea's relevance, and models the type of buy-in and stakeholder participation we hope will be inculcated throughout the activity. Should an idea not be forthcoming from the group (perhaps due to fear of retribution or mistrust), the facilitator may choose to introduce one or two that seem generally relevant to the group.

Change Tower. A "Change Tower" was introduced into the simulation to represent the relative tenuousness or strength of innovation diffusion or the relative sustainability of a change process. If foundational elements (roles) are missing or choose to no longer support an innovation and change, the change process represented by the

tower may not be sustainable, or may be precariously balanced. Any further blows or setbacks may terminate the process, and people/systems will largely return to their previous form.

The change tower also illustrates that compensations can be made in a change process. For example, loosing a critical change agent for one reason or another may not necessarily doom a change process. If the process has enough inertia and has (or can muster) a broad enough following, the change may be sustainable despite the loss of key players. The concepts of power structures and opinion leaders are also supported (albeit crudely) in the change tower through the use of 3 building block sizes.

It is important to note that the design team selected the metaphor of journey and map over that of blueprint and structure (Evans, 1996). The Change Tower is not designed to reflect an unwise practice of building a structure while concurrently designing the blueprint. The design team felt that most change processes, particularly in education, are not entirely predictable. Educational change does not lend itself to the meticulous planning and detailed specifications required when architecting and before the engineering a structure. On the contrary, it is held that educational change requires a level of commitment to set out on a journey, to chart a new course. Continuous evaluation and milestones all along the way help map the road ahead, but the destination (final product) is not fully known from the outset as might be said of a blueprint.

Change Roles. Change roles have been borrowed and adapted from 2 prominent change models (AtKisson, 2003; Rogers, 1995). Although in life such roles are less clearly defined than in the simulation activity, the categories are consistent with roles identified in other models and address the main change roles involved in a systems

change process. Depending on the size of the simulation group, the number of people playing the different roles may vary. Change roles are NOT tied to specific titles with an organization or school. Suggested role numbers appear in parentheses. Change roles are not explicitly revealed until Phase five of the change process. This reflects a sense that people may find it difficult to reach consensus on who their influential peers and opinion leaders are in a school. Whereas titles (teacher, principal, PTA member) are typically more obvious, Change Roles are less so, and may shift given the nature of the change or innovation. Below are the Change roles with brief descriptions:

- **Innovator** (1-2 people)--You are an idea generator. You are up on the research and advancements in education. You may be considered by some to be "on the fringe". To you, "there must always be a better way."
- **Change Agent** (1-2 people)--You are the "idea broker" for the Innovator. You help promote new ideas, solutions and directions. You are a good communicator and an opinion leader in the organization.
- E**arly Adopter** (1-2 people)--You are open to new ideas and are often the promoter of positive changes. You are a forward-thinking member of the organization and help decrease uncertainty innovations by trying it first and providing subjective evaluations.
- **Mainstream** (3-6 people)-- You are a part of the "noisy majority". You aren't the first to change but you aren't the last either. You start to change when others like you start to change.
- **Late Adopter** (3-6 people)--You are also a MAINSTREAMER. In general, you don't like change. It takes a lot of pressure and/or evidence of

value from the majority of the group before you will change. You are skeptical and cautious of so-called “innovations”.

- **Unbudgeable** (1-2 people)-- You do not like change at all. In fact, you have a vested interest in keeping things the way they are.

Facilitator Guide and Group Instructions. General instructions for the simulation activity have been prepared for participants. Participants should be encouraged to briefly review instructions before beginning the activity. A guide for facilitators has also been prepared that instructs facilitators on how to run the simulation activity and provides both overall and phase-specific suggestions.

Title Selection. Titles have been selected that are consistent with the K-12 school setting. At the outset of the simulation activity, participants will choose relevant titles without knowledge of the specific innovations to be pursued. All simulation participants wear these titles conspicuously on nametags. As mentioned previously, titles are independent of Change Roles.

Card I: Title Card. Title cards identify defining characteristics of the title role to be played out. There is more than one type of each title. For example, one teacher may be a 30-year veteran at a school that is well respected and active in the community. Another teacher may be young and just out of college. Title Roles are described such that participants have cues to how they might respond to change and innovations. The Title Roles may be somewhat stereotypical, but serve their purpose, and do not inherently discourage “variations on a theme” or participant improvisations. Title cards were designed NOT to describe socioeconomic, race or gender characteristics.

Card II: Change Role Card. These cards serve the purpose of describing the Change Role to the participant. The cards can be referred to throughout the simulation to cue participant responses and actions. For example, some characteristics of an "Innovator" or "Early Adopter" are explained. These serve indirectly to educate participants of their change roles and help them understand the process and roles involved in change more deeply. The roles might be particularly beneficial to those who play a Change Role that does not match the role they naturally play in their school.

Card III: Phase Card. Different Change Roles may have varying degrees of direct involvement (or importance) in different phases. Phase-specific instructions are provided for each Change Role card, to prompt participants on how to play out their role. Mainstreamers for example may be reminded that they need not throw their support behind an innovation until their concerns have been adequately addressed by innovating group, or until enough early adopters and other mainstreamers have placed their support blocks down.

Cards IV: Fate Cards. Numerous Fate Cards have been prepared for simulation. These cards reflect unforeseeable kinks in the change process encountered in real life: People are pulled from projects, people withdraw support for undisclosed or irrational reasons, change can be mandated, and vendors go out of business. Fate Cards were designed to introduce some of this randomness to the change process. The facilitator at his/her discretion may dole these cards out to move the game along, or to add obstacles to an overly smooth change journey. See the materials descriptions for list of Fate Cards actions.

Block: Block Size. As stated previously, block size is used to represent the power structures and opinion leaders inherent in any organization. An awareness of these structures and roles or realities is important in trying to facilitate change in an organization. At the start of the game, after titles are chosen, the participants will have a chance to discuss and come to consensus on who will receive which sized block. This variation in Change Role, Title and block sizes provides a chance for varied characters with each playing of the game.

Change agents should be cognizant of who opinion leaders are, and consideration should be given as to whether and how they should be "courted" in order to help diffuse an innovation and effect change. All participants should be aware of what battles are worth fighting, and what the consequences are for going with or against the stream of a change process. For a discussion of some the limitations associated with the use of blocks, see the "limitations" section later in this simulation documentation.

Block: Placing And Removing Blocks. Laying down one's block(s) serves two primary functions. First, laying down one's block signifies their buy-in or support of an innovation at a given point in the change process. Secondly, laying one's block down helps the simulation activity proceed smoothly and in a timely manner. Participants need not lay down blocks at each phase. Some discretion (within stated limitations) is given to the participants to act out their part. For example, some mainstreamers may delay laying their block for a phase until they are provided with "compelling" reasons to do so. When blocks are placed on the Change Tower, only the block relevant to the current phase is placed (identified by matching phase and block colors).

Blocks representing support for an innovation can also be revoked by simulation participants. This may occur if certain change roles (primarily early adopters and mainstreamers) are not feeling included in the envisioning and mapping phases of the change process. The facilitator may also hand any change role a "switch innovation" or "withdraw support" fate card. If one withdraws support for an innovation, only the block for that phase (matching color) is withheld or removed, previously laid blocks from earlier phases remain in place.

Six Phases. As stated above, the team recognized that the change process is a cyclic and spiral journey. For the game's sake, we set up milestones to consistently gauge the level of support that the innovation has throughout the journey. We decided to challenge ourselves by creating our own models to depict the change process. While doing so, we synthesized the information we learned from various sources into six major phases. The action words of these phases describe the major actions that will happen during these phases. Also, as the change progresses, the support of more and more people (stakeholders) is needed for an innovation to succeed and be sustainable. The phases include:

Phase One: Desire-Drive. We decided not to use a mandated innovation in our simulation; instead change shall happen because of people's desire and drive for change (Fullan, 1993). At this phase, people may voice complaints about something in the system, which may be different for different people. In any case, at least SOME people in the system have the desire to change. Their desire is expressed by placing their phase 1 block in the Change Tower space.

Phase Two: Relationships-Ideas. Some innovative individuals bring in or put forward a solution for one of the problems people have been grumbling about. In real life, there can be more than one innovator. Our simulation makes accommodations for this to boost connection to reality. In order to move the change process forward, the innovators are advised to spread their innovations rather than being detached as some innovators may prefer to do in real life. By the end of this phase, one or more innovations are put forward; relationships between innovators, change agents and some early adopters are established.

Phase Three: Envisioning. During this phase, people compromise with each other by agreeing upon one problem-one solution at this time. In a large system, it is possible that there is more than one on-going innovation. However, we believe that everybody focusing on one innovation is more appropriate for a 20-participant simulation for the purpose of learning the process. When a common vision of what the future will be like is being established, the original innovation can be reshaped according to the specific conditions. In the meantime, more people nod to the common vision and join the innovative side. In this phase, the leadership begins to solidify itself. This leadership, in our case the change agent/innovator group, acts more as a facilitator of the innovation helping to make the goals of the innovation more explicit to everyone (Evans, 1996).

Phase Four: Mapping. In this phase, people begin to match the vision with resources for the implementation of the innovation. The innovation continues to be re-shaped because of practical constraints. More people are drawn into the innovative side during this process.

Phase Five: Implementing. As the innovation is being implemented people in this system gain more knowledge and continue practicing it. They grow from novices to experts with the innovation. In order to visually depict the growth, we introduced the concept of "implementation path", which is a curved path on the game board. The path consists of many squares called "implementation squares" to describe progressing steps from a novice to an expert. Since growth is by no means a smooth process, we included some possible obstacles as "growing pains" in this phase and embedded them into the implementation path (for details, please refer to the "implementation squares" on the game board). Since different people of different change roles commit to the innovation at different times (Rogers, 1995), their varying knowledge about the innovation will expectedly give them varying momentum for moving from novices to experts. This consideration is embodied in our simulation with different speeds of movement of various change roles.

Phase Six: Refining-Sustaining. At this last phase of the change cycle, people refine the innovation and work to keep the *new* status quo. If problems or dissatisfaction with innovation cannot be alleviated through time and/or minor course corrections and adjustments, the dissatisfaction may brew into a *new* desire and drive for change--a new change cycle may be initiated.

Board. The game board is divided into the six phases discussed previously as well as a space for the change tower. The game board was designed to illustrate the journey through our change process. We decided that the first four phases of the change journey should be about groups moving together. Unlike Rogers, we believe that in order for change to be successful the people involved need to move in a cohesive group to the

greatest extent possible. Therefore, the entire group of players (stakeholders) moves together from one phase to the next

Flow. The flow of the game will be largely determined by the participants with some control by the facilitator. The decision to move from one phase to another is up to the players and is signified by each player making a choice to either place or keep their color coded block. The intent is that they develop an understanding of what it really takes to move as much of the group as possible into the next phase. This understanding will be helped by facilitator questions and interaction between players during each phase.

Reflection Questions. At the end of each phase, as well as the end of the game, the facilitator will engage the players in a bit of reflection about the process thus far. These questions are designed to make sure the players are confident in their decision to move on as well as check for understanding of the change process. These questions should also help prepare the players for what they may face in the next phase. These questions are one way for the facilitator to either speed up or slow down the pace of the game.

Color Coding. The blocks and phases have been color coded so that the players build the change tower using the blocks they are given for each level. This color-coding will make sure that players remember when they have and have not placed a block and at which phase they committed to the change process and innovation. In addition when reflecting on the games, participants may take note of who did not lay down blocks, in what phases, and why?

Timed Sessions. The first phase is timed in order for as many people as possible to "experience" each others' grumblings. Each pair of players will have one minute, 30

seconds per person, to state their problem and convince others as to why the problem is important. The other phases of the game are not timed however the facilitator should be aware of how much time the group they are facilitating has to work with. As we have not played the game with a real group of learners, the overall time for the game has yet to be determined.

Limitations

As with any simulation based on role-play and unscripted player interaction, the flow of the game and success of the game rests almost entirely in the hands of the players. If the players do not maximize their role or understand how their role interacts with others and uses this knowledge, the game may stall at points. The group has added facilitator interaction opportunities in order to give her the chance to keep this stalling from occurring. This means the facilitator must have a strong background in not only diffusion and change but in the workings of the game as well, having played it herself at least once or twice.

This game is an attempt to transfer real life interactions to a simulation situation. There are many aspects of real life change, such as implementation, that can not be adequately simulated here. Also in life, it is difficult to know who is and who is not supportive of an idea. The simulation uses blocks to represent such decisions in a far more public and explicit way than is commonly the case. Simulation participants might be more prone to peer pressure and some groupthink. Reminders and fate cards played at the discretion of the facilitator help to avoid such circumstances if they are detected.

Conclusion

The group had an interesting, challenging and rewarding time developing this simulation game. The discussions that took place helped each of us gain a greater understanding of the change process as well as the interactions that take place in a K-12 educational setting. Hopefully, the group will continue to develop the game into a useable product. There is a great opportunity to use this game to assist graduate students as well as K-12 practitioners in learning and understanding the change process as we have developed it. We also hope that the amount of time needed to complete the game is adequate to be used in various time-constrained situations. This aspect will be fleshed out with further development of the game through eventual piloting that the group was not able to do because of time limitation.

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