

Evaluation Excerpt: ReliefSim

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Evaluation Summary: <http://ccnmtl.columbia.edu/projects/evaluations/reliefsim.pdf>

Background to the evaluation

An essential part of the feasibility phase of the of the ReliefSim was prescribed in the original project proposal goals to the Andrew W. Mellon Foundation in September 2001, namely the necessity to produce a proof-of-concept prototype that would inform subsequent developments.

Peter Sommer and his team at CNMTL at Columbia University, New York, developed the first of these prototypes. The prototype was designed with a specific Columbia course in mind, namely the Masters of Public Health, offered by the Mailman School of Public Health of Columbia University, and for a specific class within the Masters degree programme. The teacher of that class, Dr. Ron Waldman, supported the Columbia team in developing and tailoring the simulation to meet the needs of his students.

Dr Ron Waldman's students were all provided with an assignment to be completed prior to attending their class on the 19th of November 2002. The assignment required the students to install software on their computers and complete a series of activities prescribed via an instruction document that was provided and supported by Ryan Kelsey, Project Manager of the ReliefSim at Columbia and his technical team.

Evidence of the student's experience of the ReliefSim prototype was collected via a questionnaire distributed to the cohort attending Dr. Ron Waldman's class on the 19th of November 2002. Twenty-two of the students returned completed questionnaires, representing a majority of those attending. All of those students who completed the questionnaire had had the opportunity to experience the simulation, had access to the student assignment and had been able to take part in class discussions relating to the resource. For further detail of the participant's experience see the assignment documentation Appendix 1. (Please contact CCNMTL, if you wish access to these materials.) The questionnaire was designed to complement this comprehensive involvement with the resource and to take into account both technical and pedagogic considerations. The questionnaire complete with both the qualitative and quantitative data is available with this report as Appendix 2. . (Please contact CCNMTL, if you wish access to these materials.)

The evaluation sought to address how the prototype performed in relation to the project goals established in the original proposal document (September 2001) previously discussed. The findings are summarised below.

Summary of Findings

Section A

Participants were asked to respond to questions fewer than three main section headings. Questions in Section A related directly to the ReliefSim assignment that had been undertaken prior to attending the Dr Ron Waldman's class.

The findings can be summarized as follows:

- The majority of respondents experienced no difficulty in following the instructions provided, for installing the ReliefSim and working on the assignment. Three respondents were not able to follow the instructions and three other respondents added qualifying remarks emphasising a degree of difficulty.
- All but one respondent stated that they were able to orient themselves to the software. Two acknowledged a degree of difficulty.
- The majority of respondents were able to view the 'Team' and 'Messages' sections of the ReliefSim. Slightly fewer were able to view the 'Information gauges', 'Assessments' and 'Interventions' sections. Fifteen of the twenty-one that responded to this question were able to view the 'General commands' section, which makes it the least viewed section overall.
- Respondents experienced varying degrees of success when undertaking activities relating to the ReliefSim. All of those that responded were able to make an 'initial' assessment' and to 'take turns'. Most were able to 'complete the scenario twice or more' and 'provide a history file'. Fewer, approximately two thirds, were successful in 'reducing crude mortality in 20 to 30 turns' or 'uploading history files to the course area' and less were able to 'use excel graphs in their evaluation' or to 'print their history files'.
- Two students had a degree of difficulty in following the installation instructions; one was not sure how to start the program once the software was installed.
- Of three respondents who had difficulty in either installing or orienting themselves to the software, one contacted Ryan Kelsey, one did not and one other respondent contacted another technical support person.

Section B

Questions in Section B were completed by 22 of the students attending Dr. Ron Waldman's class.

- All but one student felt that 'the teacher helped to bring the ReliefSim to life' and that they 'understood more about decision making in the field'. They also felt helped to 'integrate the different components of the course'. Most students said that they 'would like to be able to try out other scenarios on the ReliefSim' and to have the opportunity to 'work on the ReliefSim in smaller groups'.
- The majority of students, seventeen of the twenty-two, would like to 'use ReliefSim again with a teacher' and believed that ReliefSim had improved their 'strategic thinking skills'. Slightly fewer thought that ReliefSim had shown them 'how complex an emergency situation can be'. Just over half of the respondents responded that ReliefSim had made them 'more interested than ever in this type of work'.
- Just over a third of the students 'found it difficult to refer to course reading materials at the same time as using the ReliefSim'. Three students felt that ReliefSim was 'too simplistic' and would not aid decision making.

Just over half of the respondents offered comments on the ReliefSim. These included:

Faults perceived in the current simulation model:

- ReliefSim seemed too ‘artificial’ for me. It seems good for practice to understand the principles of organising and managing complex emergencies, but the programme seems to run the risk of being too much like a game.
- Need to make it more difficult to figure out e.g. more random.
- I think that this is a good base – but after a while I felt that it was too simplistic. I knew what to do give food, give water, dig trenches (community pits), maintain water quality – just doing these things I was able to have a very low mortality.
- My biggest problem was figuring out the gauges and keeping track of this. A more user-friendly interface will make a big difference. I ran out of things to do after a while – there would be problems that I couldn’t do more to fix.

Suggested additions to the current simulation model:

- Incorporate more options for intervention.
- Gauge of dollars available– Something to remind player of what he did in previous turns – More diseases.
- It should include VIT A supplementation. One of the major diseases missing is the group of infections under ARI (Acute Respiratory Infections).
- Dynamics of local population – receptivity, community participation, in-fighting, mental trauma, stress, culture, skills, etc. etc. A very one-way model (us and them) at this point.
- The directions for the activity need to be made clear.
- Define exactly what assessment terms include. As many variables as possible – regional differences – surprises with small explanation.

Enthusiastic comments:

- Great teaching tool – learned a lot.
- I liked doing it first alone and then combining it with a group. Smaller groups may give more people the opportunity to speak.

An equivocal comment which implied that the group dynamic was what informed the respondent’s experience of the software:

- It was great to see the group dynamic. It added the human aspect to the otherwise squeaky-clean process.

Section C

The questions in Section C were again completed by 22 of the students attending Dr. Ron Waldman’s class. The questions explored respondent’s attitudes towards the ReliefSim and their individual learning styles.

Three quarters of the questions in this section drew ‘middle option’ responses i.e. respondents did not really commit themselves positively one way or the other. These included:

- Of the twenty-two respondents who answered the question ‘Has the ReliefSim improved your decision making skills?’ fifteen said ‘somewhat’.
- Asked if it was possible to recognise what had changed on the ReliefSim after each turn, thirteen responded ‘sometimes’ with fewer, nine, responding ‘yes, always’.
- When questioned about whether they had found it useful to make notes while using the ReliefSim, two thirds of respondents said ‘Just a few’.
- Over half of the students, felt that the ReliefSim had helped to put the course reference materials in context

- ‘a little more’. Only a third of respondents, seven, felt that ReliefSim had helped ‘a lot’ in this regard.
- When commenting on their conceptual understanding of the decision making processes required in humanitarian emergency situations, over half felt that the ReliefSim had helped them gain ‘a little more’ conceptual understanding, with fewer, nine, acknowledging ‘a lot’ more.
- Asked if the ReliefSim had provided insight into what a real emergency situation is like over half responded ‘a little more’ with a quarter responding that the ReliefSim had given them ‘considerable insight’.

Just two of the questions elicited a committed response from the participants.

- When asked how confident they felt in applying the skills learned to a different ReliefSim scenario the responses were equally divided. Half of the respondents felt ‘very confident’ in transferring their skills and half felt ‘Not very’ or ‘Not at all confident’.
- The majority of the participants, seventeen, responded that they had not referred to their course readings at all when using the ReliefSim.

Conclusions

Having had the opportunity to be present in Dr. Ron Waldman’s Columbia class using ReliefSim, it is important to conclude the findings of this evaluation report with some subjective evidence based on observations of students engaging with both the ReliefSim and their teacher. The class was an opportunity for the students to discuss the variety of approaches they had taken towards the rationale for their decision as they completed their ReliefSim assignment.

The students were made aware that the finished version of the ReliefSim would look and feel quite different and that the finished version would not only ‘look good’ but would also have video and reference materials as resources, available as and when needed. The students appreciated their own role as developmental testers of the software.

The session was exciting, the students were engaged and enthusiastic and full of suggestions regarding how they had used the ReliefSim and how the model might be developed and improved. The ReliefSim had fostered in this group a real sense of engagement with the issues and the class represented more of an ‘Emergency Relief Team meeting’ than a traditional lecture group. The quieter ones in the group came to understand that decisions in ‘the emergency environment’ are made on the basis that those who are prepared to make their voice heard will dominate decisions. That to have views and not to state them assertively will often mean that those views are not represented, an important lesson to be learned.

Individual students offered suggestions for improving the resource, including the need for more qualitative information on the ReliefSim. This request was summed up by one student as:

‘I want to know how people are malnourished not just the numbers who are malnourished’.

Another student commented that:

‘Assessment and infrastructure dominate the ReliefSim and not Services’.

There was a general recognition that the ReliefSim had chosen a design ‘where time stands still’ unlike reality.

It was noted, with a slight sense of the ReliefSim 'playing by its own rules', that the current model does not reward assessment but does punish non-assessment and reassessment.

These student views emphasise the level of engagement that they had with the resource.

In the class there was a distinct feeling that, for the first time, some students had begun to appreciate the point of view of a range of contributors and that, as a result, their own 'comfort zone' of experience was being broadened. The affective learning that was taking place was almost palpable and one left the session thinking that the ReliefSim concept was something that could effect a step change in training for humanitarian emergencies.