

Preliminary Evaluation of Mismanor

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ABSTRACT

Our game, *Mismanor*, is a social role-playing game where players are given social goals and achieve those goals by manipulating the relationships and feelings between the different characters. This paper evaluates the play experience of our social role-playing game when offering different amounts and styles of social moves to the player: the core mechanic of how the player changes the social state. After analyzing the different ways in which the player is given choice, we have found a tentative preferred method of presenting social moves to use in our game's future iterations.

Keywords

character interaction, game design, role-playing games, storytelling

1. INTRODUCTION

Computer role-playing games (CRPGs) often contain lovingly hand-crafted and strong narratives; however, the density of interesting and meaningful player choice exists primarily in combat. The authors have been developing an exception to the CRPG genre entitled *Mismanor*, a social role-playing game (RPG) that wishes to explore other avenues of interesting player choice [sullivan2011]. The player creates a social persona, such as the honest counselor, rather than a combat persona, such as the high-damage thief.

However, the daunting complexity of social interactions has proven to be an incredible design challenge. While using a complicated artificial intelligence that combines layers of reasoning, it is extremely easy to overwhelm players by exposing the guts of the algorithms [5]. Unfortunately, without showing some underlying intelligence, the player often assumes a lack thereof in the form of randomness or shallow algorithms. The following study informs our design choices concerning how much information to show the player and how many options they wish to be presented with at any given time.

2. RESEARCH QUESTIONS

Mismanor uses social moves rather than combat moves in order to fulfill its quest objectives, and because social moves are such a new concept, we have to engineer an intuitive way to present social moves to the player. We want to answer the following design questions for our game's play experience:

- Do players feel more agency with more social move options?
- Do players feel more overwhelmed with more social move options?
- Do players feel they have more control when they pick the intent of a social move before the social move itself?

More specifically, the following study wishes to answer the following questions concerning the *Mismanor* interface:

- How many social move options should we offer to the player to maximize their options while limiting their confusion?
- Does showing the intent of the social move help inform the player's decision without confusing them?

In order to answer these questions, we had the player explore two instances of *Mismanor*. We then analyzed the player's play traces, as well as their responses in a post-play survey, in order to determine how to present the player with social moves and improve the interface.

3. EXISTING STUDIES

Two previous projects primarily informed the design decisions of both *Mismanor* and the evaluation that this paper presents: *Facade* and *Prom Week*.

3.1 *Façade*

Façade is an experiment in interactive drama created by Michael Mateas and Andrew Stern where the player uses text input to influence a couple on the brink of divorce [2]. While the player's interface is only text-based, the Natural Language Understanding (NLU) of *Façade* breaks down player's input into a small, finite space of dialogue acts. *Mismanor* instead presents similar options straight to the player for selection and then realizes an instance of dialogue for

the player. While the interface is different, the social flow is similar to our project. Many of the demographic and social interaction-based questions of *Façade*'s evaluation informed our evaluation of *Mismanor*.

3.2 *Prom Week*

The second is *Prom Week*, a game made on the same social simulation system as *Mismanor*: *Comme il Faut* (CiF) [4]. *Prom Week* has struggled with many similar user interface (UI) problems that we see in *Mismanor* because they are both built on the same structure of social actions, character traits and statuses, and manipulation of the game's social state [3]. However, because the narrative and focus of both games are different, they require different user interfaces that highlight their individual strengths. *Mismanor* has utilized some of *Prom Week*'s features, such as making the game state transparent to the player via natural language. Both systems continue to advance side-by-side and share the benefits of their improvements from studies such as this one.

4. DESIGN CHOICES

Our design questions concern two different variables that may or may not affect one another: showing intent for social moves and how many social moves to show. In order to reduce ambiguity between the variables, we had each participant play two versions of the game that had the same number of social moves (2, 4, 6, or 8), one with intents and one without. It was randomized which version the participants played first. In this way, we can see the effect of showing intent based on an individual's perceptions, and judge the effect of the number of social moves offered between participants. We wanted to make maximum use of our participants without overloading them with too many versions of the game [1].

In order to capture the effects of the dependent variables on the participants and the participant's perceptions, we collected data from the participant before, during, and after playing our game. Pre-game, the participant filled in demographic information that would hopefully capture possible preferences, biases, and experience with other games that might have skewed our results. During the game, play traces of the player's every action within the system was saved and documented as they played. If the game crashed, as it was prone to doing in its rough prototype stage, data would still be saved in order to find and fix those bugs at a later date.

Finally, once finished with the game, the participants answered 27 5-point Likert scale questions and 12 short answer questions about their play experience. The post-play questions consisted of everything between UI opinions to story comprehension and agency due to the intent and number of social moves they were offered. These questions were able to not only provide us a tentative answer for our research questions, but also with suggestions to improve other aspects of *Mismanor*. You can find a copy of the full list of questions presented to the player at the end of this document (Appendix B).

5. ANALYSIS METHODS AND RESULTS

The combination of our intent and social move number variables left us with eight unique instances of the game, of

which the player played two in a random order. That leaves 16 unique testing scenarios that we wished to examine. Unfortunately, our testing pool was pitifully small: 15 participants who made it to the end of the test with varying levels of length of time playing and feedback. It is clear that not every unique scenario could have a participant, let alone enough participants per unique scenario to make any broad generalizations about our results or to specifically answer our research questions. The small sample set also allowed for a skewed representation of intents: 60/40 rather than 50/50. However, we began this study knowing that our game was a rough version of a prototype, and that we would gather as much data as we could regardless of the statistical power behind the study.

5.1 Participants

Our participants are gamers who currently played an average of 12 hours per week of video games and have played approximately 19 different role-playing games in their life. 93% of the participants consider role-playing games to be one of their favorite types of games to play, where none find sports games to be their favorite. 86% of participants currently read books in their spare time at an average of 4.2 hours a week, and 80% listed the fantasy genre as being among their favorites. A full description of the participants' demographic can be seen in the attached Descriptive Statistics table (Appendix A).

5.2 Quantitative Results

As mentioned above, we did not have a statistically significant participant pool from which to find any meaningful results between showing the player intent first/second or offering them few or many social moves. Hypotheses for this will be discussed in the following Discussion section. However, we did find some statistically interesting results about the means and crossing of certain Likert questions (although many will object to finding any statistically significant results from a pool of users this small). The following questions are encoded on a scale between 0 as "Strongly Disagree" and 4 as "Strongly agree."

There was a statistical difference ($p < 0.00$) in the response to the statement "My actions had the desired results," showing that there is approximately an even third split between agreeing, disagreeing, and neither (Figure 1). While we may be concerned that players might not feel informed enough about the social state, this actually reflects mechanics of our game. When making a social move involving another character, that character may accept or reject your move (such as accepting or snubbing a flirt) and change the outcome of the player's intended action.

However, much more troubling is the response to the statement "I knew how to accomplish my goal." With a $p < 0.00$ within the scale and a mean of 1.87/4, our game is seriously lacking in providing the player with the knowledge of how to work within the social system (Figure 2). There is a similar problem with the statement "Characters were responding to my actions," with a statistical significance of $p < 0.00$ and a mean of 1.47/4 (Figure 3). 60% of our participants either disagreed or strongly disagreed with the fact that characters responded to the player's actions. While it is difficult to provide social feedback for every action, we had hoped the

My actions had the desired results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	20.0	21.4	21.4
	1	2	13.3	14.3	35.7
	2	6	40.0	42.9	78.6
	3	3	20.0	21.4	100.0
	Total	14	93.3	100.0	
Missing	System	1	6.7		
Total		15	100.0		

One-Sample Test

	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence ...
					Lower
My actions had the desired results	5.682	13	.000	1.643	1.02

One-Sample Test

	Test Value = 0
	95% Confidence ...
	Upper
My actions had the desired results	2.27

Figure 1: SPSS Tables for distribution of participant's perceptions of desired results

I knew how to accomplish my goal

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	20.0	20.0	20.0
	1	4	26.7	26.7	46.7
	2	3	20.0	20.0	66.7
	3	2	13.3	13.3	80.0
	4	3	20.0	20.0	100.0
	Total	15	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I knew how to accomplish my goal	15	1.87	1.457	.376

One-Sample Test

	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence ...
					Lower
I knew how to accomplish my goal	4.961	14	.000	1.867	1.06

One-Sample Test

	Test Value = 0
	95% Confidence ...
	Upper
I knew how to accomplish my goal	2.67

Figure 2: SPSS Table showing participants as primarily neutral or disagreeing with knowing how to accomplish their goal

Characters were responding to my actions

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	3	20.0	20.0	20.0
1	6	40.0	40.0	60.0
2	2	13.3	13.3	73.3
3	4	26.7	26.7	100.0
Total	15	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Characters were responding to my actions	15	1.47	1.125	.291

One-Sample Test

	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence ...
					Lower
Characters were responding to my actions	5.047	14	.000	1.467	.84

One-Sample Test

	Test Value = 0
	95% Confidence ...
	Upper
Characters were responding to my actions	2.09

Figure 3: SPSS Table showing perception of unresponsive characters

Report

The game was boring

Mean	N	Std. Deviation
2.40	15	1.121

Figure 4: SPSS Table showing a high mean of agreeing the game is boring

system would be perceived as being more responsive. Unfortunately, we also had a mean of 2.4/4 to the statement “The game is boring” (Figure 4).

The participants also disagreed with the idea that the system is “dynamic” with a mean of response of 1.53/4 with approximately 50% disagreeing to some degree, 25% agreeing, and 25% saying neither (Figure 5). We had hoped that the system’s flexibility would show its dynamism, but it appears we were incorrect. In an interesting statistical observation, there was a significant correlation between the participant knowing their goal between the first and second playthrough ($p < 0.04$), which shows that players did not make any significant progress toward understanding the system by playing it more (Figure 6). It does not come as a surprise, then, with over 70% of the participants agreed or strongly agreed with the statement “I would have liked a tutorial” (Figure 7). 80% of participants also strongly disagreed with knowing how to use the inventory system (Figure 8).

80% of our testers either were indifferent to or did not want to kill anything in our game, so we are successfully projecting our social (rather than combat) gameplay (Figure 9). Our participants had an exact mean of 2 out of 4 in determining if our game had the right amount of text (Figure 10). Luckily, even with our text-based interface, we are not seriously overwhelming our players with text. Similarly interesting, the response to the statement “I wanted to win” also had a mean of 2/4 with a statistically significant ($p < 0.00$) difference in the responses (Figure 11). In our demo, the goal was to finish a single quest, and it was not stated clearly that this was how the player would “win.” It seems that we are also successfully encouraging players to explore the social space rather than search for a way to “game” the system.

5.3 Qualitative Results

Along with the Likert post-play questions, we also had 12 open-ended discussion questions where participants could speak their minds. However, with many responses being left blank or incomplete, it was even more impossible to conduct any meaningful quantitative analysis of the language used. We still were able to gather information to improve our game, which is the ultimate goal. Every participant mentioned the user interface, either directly or indirectly by not understanding a system, and many offered very helpful suggestions.

For one, any box that contains scrolling text or objects should include a scroll bar. The character creation screen needs to be labeled as such, and all of the options in the character creation screen need to be labeled for how they can change game play. The ability to interact with items was incredibly easy to miss, and also incredibly unintuitive (which was reflected in the Likert questions as well). One participant stated that trying to decipher the “quasi-debug” statements was incredibly difficult, and that it was hard to determine what effect any action would have on the game world. One user specifically wanted incentive to explore the world, as the repeated jokes and text were not motivating enough to interact with characters. Generally, if our game has a system, you can bet a participant was confounded by it.

We were also able to observe bugs both in the textual feedback and in our play traces. For example, three participants mention specifically Victoria’s over-use of the social move “Conversational Flirt” and James’s use of “Embarrass Self.” Five players noticed continuity problems such as the player having familial ties with other characters or having a blouse while male. One character noticed the ability to have same-sex relationships and commented on them being considered more taboo for the time period.

6. DISCUSSION AND CONCLUSION

The system is dynamic

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	4	26.7	26.7	26.7
1	3	20.0	20.0	46.7
2	4	26.7	26.7	73.3
3	4	26.7	26.7	100.0
Total	15	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
The system is dynamic	15	1.53	1.187	.307

One-Sample Test

	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence ...
					Lower
The system is dynamic	5.002	14	.000	1.533	.88

One-Sample Test

	Test Value = 0
	95% Confidence ...
	Upper
The system is dynamic	2.19

Figure 5: SPSS Table showing a lack of dynamism

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
I knew my goal 1st Playthrough * I knew what my goal in the game was 2nd Playthrough	14	93.3%	1	6.7%	15	100.0%

I knew my goal 1st Playthrough * I knew what my goal in the game was 2nd Playthrough Crosstabulation

Count

		I knew what my goal in the game was 2nd Playthrough				Total
		0	2	3	4	
I knew my goal 1st Playthrough	0	1	0	0	0	1
	2	0	2	0	0	2
	3	0	3	3	0	6
	4	0	3	1	1	5
Total		1	8	4	1	14

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.025 ^a	9	.035
Likelihood Ratio	11.712	9	.230
Linear-by-Linear Association	6.062	1	.014
N of Valid Cases	14		

a. 16 cells (100.0%) have expected count less than 5. The minimum expected count is .07.

Figure 6: SPSS Table showing a correlation between being confused

I would have liked a tutorial

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	6.7	7.1	7.1
	2	3	20.0	21.4	28.6
	3	5	33.3	35.7	64.3
	4	5	33.3	35.7	100.0
	Total	14	93.3	100.0	
Missing	System	1	6.7		
Total		15	100.0		

Figure 7: SPSS Table showing that participants wanted a tutorial

I know how to use the inventory system

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	12	80.0	80.0	80.0
	1	1	6.7	6.7	86.7
	2	1	6.7	6.7	93.3
	3	1	6.7	6.7	100.0
	Total	15	100.0	100.0	

Figure 8: SPSS Table showing an incredibly low aptitude for the inventory system

I wanted to kill things

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	40.0	40.0	40.0
	1	4	26.7	26.7	66.7
	2	2	13.3	13.3	80.0
	3	1	6.7	6.7	86.7
	4	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

Figure 9: SPSS Table showing the low curve for wanting to kill things in the game

Thanks to the multifaceted approach to gathering feedback, we have a plethora of problems to address. Primary of those problems are user interface overhauls or improvements, specifically those geared toward informing the player of what is going on in a digestible fashion. Our game suffers both from under- and over-loading the player with different systems.

Our character creation, quest, and inventory interaction system are under-developed, leaving players lost with a complete lack of information. We need to add mouse-over and other optional information in the character creation screen for those interested in looking for it, and add in a tutorial for handling items and quests so that the player knows how to do it in the future. On the other hand, our social interaction and network displays are overloading the player with badly formatted textual information that players cannot make use of. We need to restructure how the general interface displays the social state information to make it accessible, and provide a filter between code-speak and game-speak.

At a higher level, we need to decide how to address other concerns with the game's flow. We need to make it clear what the player should be doing to interact with the world, such as spamming social moves or picking a few key maneuvers, and encourage that interaction with incentives inside the game system. The participants expressed their preferences, such as reducing spamming (of social moves and of the text they see), increasing variety as much as possible, and even hiding the shown type of intent because that made the interactions too transparent.

Our system seems to be in a unique situation where it is both too transparent and too opaque. Players want another level of abstraction to the system, where they can digest the options and information quickly, and yet make powerful choices. The consensus, at least from the participants in this study, is that *Mismanor* currently has too many weak

choices, and needs to be distilled into a smaller number of powerful choices that are clearly presented to the player.

7. REFERENCES

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APPENDIX

A. DESCRIPTIVE STATISTICS

Had the right amount of text

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	6.7	6.7	6.7
1	4	26.7	26.7	33.3
2	4	26.7	26.7	60.0
3	6	40.0	40.0	100.0
Total	15	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Had the right amount of text	15	2.00	1.000	.258

One-Sample Test

	Test Value = 0				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence ...
					Lower
Had the right amount of text	7.746	14	.000	2.000	1.45

One-Sample Test

	Test Value = 0
	95% Confidence ...
	Upper
Had the right amount of text	2.55

Figure 10: SPSS Table showing wide distribution of opinions on the amount of text

I wanted to win

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	13.3	13.3	13.3
	1	3	20.0	20.0	33.3
	2	5	33.3	33.3	66.7
	3	3	20.0	20.0	86.7
	4	2	13.3	13.3	100.0
	Total	15	100.0	100.0	

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
I wanted to win	15	2.00	1.254	.324

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
I wanted to win	6.179	14	.000	2.000	1.31	2.69

Figure 11: SPSS Table for how much the player wanted to win

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Experience with Computer Programming	11	3	0	3	1.45	.312
Experience with Game Design	15	3	0	3	1.13	.291
Experience with Keyboard and Mouse	15	1	2	3	2.87	.091
Have you played video games in your life?	11	0	1	1	1.00	.000
Do you play video games?	15	0	1	1	1.00	.000
Years experience playing video games at least 5 hours a week	15	23	0	23	14.07	1.809
Hours per week playing video games now	15	21	0	21	12.00	1.633
Experience with RPGs	15	40	0	40	19.27	3.177
Favorite Action Adventure	15	1	0	1	.73	.118
Favorite Role-Playing	15	1	0	1	.93	.067
Favorite Turn-Based Strategy	15	1	0	1	.47	.133
Favorite Real-Time Strategy	15	1	0	1	.40	.131
Favorite Adventure	15	1	0	1	.40	.131
Favorite Sport	15	0	0	0	.00	.000
Favorite Puzzle	15	1	0	1	.40	.131
Favorite Interactive Fiction	15	1	0	1	.40	.131
Favorite Social	15	1	0	1	.07	.067
Least Favorite Action Adventure	15	0	0	0	.00	.000
Least Favorite Role Playing	15	0	0	0	.00	.000
Least Favorite Turn-Based Strategy	15	1	0	1	.07	.067
Least Favorite Real-Time Strategy	15	1	0	1	.13	.091
Least Favorite Adventure	15	1	0	1	.07	.067
Least Favorite Sport	15	1	0	1	.87	.091
Least Favorite Puzzle	15	1	0	1	.20	.107
Least Favorite Interactive Fiction	15	1	0	1	.07	.067

Descriptive Statistics

	Std. Deviation	Variance
	Statistic	Statistic
Experience with Computer Programming	1.036	1.073
Experience with Game Design	1.125	1.267
Experience with Keyboard and Mouse	.352	.124
Have you played video games in your life?	.000	.000
Do you play video games?	.000	.000
Years experience playing video games at least 5 hours a week	7.005	49.067
Hours per week playing video games now	6.325	40.000
Experience with RPGs	12.303	151.352
Favorite Action Adventure	.458	.210
Favorite Role-Playing	.258	.067
Favorite Turn-Based Strategy	.516	.267
Favorite Real-Time Strategy	.507	.257
Favorite Adventure	.507	.257
Favorite Sport	.000	.000
Favorite Puzzle	.507	.257
Favorite Interactive Fiction	.507	.257
Favorite Social	.258	.067
Least Favorite Action Adventure	.000	.000
Least Favorite Role Playing	.000	.000
Least Favorite Turn-Based Strategy	.258	.067
Least Favorite Real-Time Strategy	.352	.124
Least Favorite Adventure	.258	.067
Least Favorite Sport	.352	.124
Least Favorite Puzzle	.414	.171
Least Favorite Interactive Fiction	.258	.067

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Least Favorite Social	15	1	0	1	.33	.126
Do you read books in your spare time	14	1	0	1	.86	.097
Years experience reading books leisurely	15	55	0	55	15.93	3.445
Hours per week reading books as a leisure activity now	15	12.00	.00	12.00	4.2000	.97688
Favorite Romance	15	1	0	1	.07	.067
Favorite Western	15	1	0	1	.07	.067
Favorite Mysery	15	1	0	1	.47	.133
Favorite Science Fiction	15	1	0	1	.60	.131
Favorite Horror	15	1	0	1	.20	.107
Favorite Historical Fiction	15	1	0	1	.20	.107
Favorite Fantasy	15	1	0	1	.80	.107
Favorite Young Adult	15	1	0	1	.13	.091
Favorite Children's	15	0	0	0	.00	.000
Favorite Art & Design	15	1	0	1	.07	.067
Favorite Craft & Hobbies	15	1	0	1	.20	.107
Favorite Technical	15	1	0	1	.47	.133
Favorite Non-Fiction	15	1	0	1	.60	.131
Least Favorite Romance	15	1	0	1	.53	.133
Least Favorite Western	15	1	0	1	.33	.126
Least Favorite Mystery	15	0	0	0	.00	.000
Least Favorite Science Fiction	15	1	0	1	.07	.067
Least Favorite Horror	15	1	0	1	.40	.131
Least Favorite Historical Fiction	15	1	0	1	.07	.067
Least Favorite Fantasy	15	1	0	1	.07	.067
Least Favorite Young Adult	15	1	0	1	.33	.126
Least Favorite Children's	15	1	0	1	.20	.107
Least Favorite Art & Design	15	1	0	1	.13	.091
Least Favorite Craft & Hobbies	15	1	0	1	.27	.118
Least Favorite Technical	15	0	0	0	.00	.000

Descriptive Statistics

	Std. Deviation	Variance
	Statistic	Statistic
Least Favorite Social	.488	.238
Do you read books in your spare time	.363	.132
Years experience reading books leisurely	13.344	178.067
Hours per week reading books as a leisure activity now	3.78342	14.314
Favorite Romance	.258	.067
Favorite Western	.258	.067
Favorite Mysery	.516	.267
Favorite Science Fiction	.507	.257
Favorite Horror	.414	.171
Favorite Historical Fiction	.414	.171
Favorite Fantasy	.414	.171
Favorite Young Adult	.352	.124
Favorite Children's	.000	.000
Favorite Art & Design	.258	.067
Favorite Craft & Hobbies	.414	.171
Favorite Technical	.516	.267
Favorite Non-Fiction	.507	.257
Least Favorite Romance	.516	.267
Least Favorite Western	.488	.238
Least Favorite Mystery	.000	.000
Least Favorite Science Fiction	.258	.067
Least Favorite Horror	.507	.257
Least Favorite Historical Fiction	.258	.067
Least Favorite Fantasy	.258	.067
Least Favorite Young Adult	.488	.238
Least Favorite Children's	.414	.171
Least Favorite Art & Design	.352	.124
Least Favorite Craft & Hobbies	.458	.210
Least Favorite Technical	.000	.000

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Least Favorite Non-Fiction	15	1	0	1	.07	.067
I knew my goal 1st Playthrough	15	4	0	4	3.07	.284
I had enough time to explore	14	4	0	4	2.93	.339
The game was boring	15	3	1	4	2.40	.289
I would have liked more options 2nd Playthrough	15	3	1	4	2.73	.206
I wanted to win	15	4	0	4	2.00	.324
Characters were responding to my actions	15	3	0	3	1.47	.291
The system is dynamic	15	3	0	3	1.53	.307
Had the right amount of text	15	3	0	3	2.00	.258
Wish for more graphical user interface	15	3	1	4	3.00	.276
I had little control over what was happening	15	4	0	4	2.33	.374
I felt lost in the number of options 1st Playthrough	15	4	0	4	2.00	.338
I knew how to accomplish my goal	15	4	0	4	1.87	.376
I was for a bigger variety in character reactions	15	3	1	4	2.93	.248
I wanted to kill things	15	4	0	4	1.27	.371
There was the right amount of options 2nd Playthrough	15	2	1	3	1.87	.133
Would have liked more options 1st Playthrough	15	2	2	4	2.80	.200
I know how to use the inventory system	15	3	0	3	.40	.235
I had control over the outcome of the story	15	4	0	4	1.67	.319
I would have liked a tutorial	14	4	0	4	2.93	.305
The system represents a complete social environment	14	3	0	3	1.29	.304

Descriptive Statistics

	Std. Deviation	Variance
	Statistic	Statistic
Least Favorite Non-Fiction	.258	.067
I knew my goal 1st Playthrough	1.100	1.210
I had enough time to explore	1.269	1.610
The game was boring	1.121	1.257
I would have liked more options 2nd Playthrough	.799	.638
I wanted to win	1.254	1.571
Characters were responding to my actions	1.125	1.267
The system is dynamic	1.187	1.410
Had the right amount of text	1.000	1.000
Wish for more graphical user interface	1.069	1.143
I had little control over what was happening	1.447	2.095
I felt lost in the number of options 1st Playthrough	1.309	1.714
I knew how to accomplish my goal	1.457	2.124
I was for a bigger variety in character reactions	.961	.924
I wanted to kill things	1.438	2.067
There was the right amount of options 2nd Playthrough	.516	.267
Would have liked more options 1st Playthrough	.775	.600
I know how to use the inventory system	.910	.829
I had control over the outcome of the story	1.234	1.524
I would have liked a tutorial	1.141	1.302
The system represents a complete social environment	1.139	1.297

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
The game had too much text	14	2	1	3	1.57	.202
Graphic novel dialogue setup would improve the interface	14	2	2	4	2.64	.169
I knew what my goal in the game was 2nd Playthrough	14	4	0	4	2.29	.244
I beat the game	14	4	0	4	1.21	.381
I would have liked less options 2nd Playthrough	14	1	1	2	1.86	.097
I felt lost in the amount of options 2nd Playthrough	14	1	1	2	1.71	.125
My actions had the desired results	14	3	0	3	1.64	.289
Intent First	15	1	0	1	.40	.131
Number of Social Move Options Presented at Once	15	6	2	8	5.47	.533
Valid N (listwise)	10					

Descriptive Statistics

	Std. Deviation	Variance
	Statistic	Statistic
The game had too much text	.756	.571
Graphic novel dialogue setup would improve the interface	.633	.401
I knew what my goal in the game was 2nd Playthrough	.914	.835
I beat the game	1.424	2.027
I would have liked less options 2nd Playthrough	.363	.132
I felt lost in the amount of options 2nd Playthrough	.469	.220
My actions had the desired results	1.082	1.170
Intent First	.507	.257
Number of Social Move Options Presented at Once	2.066	4.267
Valid N (listwise)		

B. SURVEY

Mismanor Survey (Pre- and Post-Play)

Participant # (Invisible to the participant, generated after consent)

Gender:

Age:

Occupation:

Education:

Experience with Computer Programming	None	Low	Medium	High
Experience with Game Design	None	Low	Medium	High
Experience with Keyboard/mouse	None	Low	Medium	High

Have you played video games in your life? Yes No

Do you currently play video games (at least once a week)? Yes No

Years experience playing video games at least 5 hours a week:

Hours per week playing video games now:

How many role-playing games have you played?:

Favorite kinds of games: (Select all the apply)

Action Adventure (Metal Gear Solid)	Role-Playing (Final Fantasy)	Social (Farmville)
Turn-Based Strategy (Final Fantasy Tactics)	Real-Time Strategy (Starcraft)	Adventure (Quest for Glory)
Sports (Madden)	Puzzle (Bejeweled)	Interactive Fiction (Zork)
Other _____		

LEAST Favorite kinds of games: (Select all the apply)

Action Adventure (Metal Gear Solid)	Role-Playing (Final Fantasy)	Social (Farmville)
Turn-Based Strategy (Final Fantasy Tactics)	Real-Time Strategy (Starcraft)	Adventure (Quest for Glory)
Sports (Madden)	Puzzle (Bejeweled)	Interactive Fiction (Zork)
Other _____		

Do you read books in your spare time (when not required by any work, school, or other occupation)?

Years experience reading books as a leisure activity:

Hours per week reading books as a leisure activity now:

Favorite kinds of books: (Select all the apply)

Romances	Westerns	Mysteries
Science Fiction	Fantasy	Thrillers
Horror	Historical Fiction	Fantasy
Young Adult	Children	Art & Design
Craft & Hobbies	Technical	Non-Fiction
Other _____		

LEAST Favorite kinds of books: (Select all the apply)

Romances	Westerns	Mysteries
Science Fiction	Fantasy	Thrillers
Horror	Historical Fiction	Fantasy
Young Adult	Children	Art & Design
Craft & Hobbies	Technical	Non-Fiction

Other _____

Answer the following questions by selecting the choice that best represents your sentiments:

Strongly Agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree

I knew what my goal in the game was after the first playthrough.

I felt like I had enough time to explore the game in each session.

The game was boring.

I would have liked more options to interact with the characters in the second playthrough.

All I wanted to do was win.

I felt like the characters were responding to my actions.

I feel the system is dynamic.

The game had the right amount of text.

I wish there was a more graphical user interface.

I felt that I had little control over what was happening.

I felt lost in the amount of options I was presented in the first playthrough.

I knew how to accomplish my goal in the game.

I wish there was a bigger variety in the character reactions to my actions.

I wanted to kill things.

There was the right amount of options to interact with the characters in the second playthrough

I would have liked more options to interact with the characters in the first playthrough.

I know how to use the inventory system.

I felt that I had control over the outcome of the story.

I would have liked a tutorial.

I feel the system represents a complete social environment.

The game had too much text.

I think a graphic novel dialogue setup would improve the interface.

I knew what my goal in the game was after the second playthrough.

I beat the game.

I would have liked less options to interact with the characters in the second playthrough.

I felt lost in the amount of options I was presented in the second playthrough.

My actions had the desired results.

Answer the following questions as completely as you can:

Was it difficult to use the system? How so?

Did you enjoy your interaction?

What parts did you enjoy?

Were there any parts you did not enjoy?

Would you like to play again? Why or why not?

Did you feel that you were able to influence the outcome? Why or why not?

Did you follow any specific strategies?

Did you feel as if the characters reacted to you appropriately or inappropriately? If so, where?

Were there moments when your selected actions did not effect the characters or the game? If so, did you change your strategy?

Were there moments when you were unsatisfied or satisfied with how characters reacted to your actions? If so, where?

How would you like the game to be improved? What other features would you want in the game?

How interested would you be in such experiences in the future, or would you like to play such games in the future?

Did you have a preference for either the first or second playthrough? If so, which one and why?

Would you like to comment on any other aspect?