

Informed Consent

Project Name: **6. NASA Game—Experimental Testing**

Overview: When NASA invited Ray Bradbury, *The Martian Chronicles* author, to the Jet Propulsion Laboratory to view photos from the first landing on Mars as they first arrived, the famed writer said his own excitement about space and the inspiration of many scientists had been the fantastic technology envisioned in pre-Space Age science fiction. NASA and the NASA-sponsored Classroom of the Future (COTF) seek to inspire tomorrow's scientists in a similar way, but this time not with the written word, but through a medium today's kids relate to—an online game, albeit an educational one. The concept is simple—kids play the game, then go look up at the moon. The *NASA Game* is a multilevel, single-player lunar game. The *NASA Game* will study how concrete, game-based experiences can prepare learners to learn.

Purpose of the research study. NASA thinks games can prepare people with just the right knowledge to be successful at learning. The *NASA Game* introduces players age 13-18 to NASA science. COTF researchers will track players' gameplay to study how the *NASA Game* environment helps them to learn.

Expected duration. The entire game session of video and gameplay should take each player about one hour. However, the length of time a learner spends on the study session depends on how long the learner plays the game.

Procedures to be followed.

- All players must be sponsored by a *NASA Game* project recruiter.
- Recruiters will distribute this informed consent form to parents/legal guardians.
- Recruiters must obtain verbal permission from parents for each player.
- Recruiters will distribute an access code to each eligible player.
- *NASA Game* players must be able to see, hear, and physically control the computer mouse and keyboard. Parents must verify their child/ward has these three abilities.
- Players will log on to [URL to be determined].
- Players will register with a unique, made-up user name. The game will assign a password to each player.
- Players must record their user name and password in a safe place. The game will not collect any personally identifiable information, so a player who forgets user name and password will not be able to access the game.
- The *NASA Game* will ask each player to provide:
 - Mother's/Female guardian's highest levels of education (no high school degree, high school degree, college degree, master's degree, Ph.D., or M.D. degree).
 - Father's/Male guardian's highest levels of education (no high school degree, high school degree, college degree, master's degree, Ph.D., or M.D. degree).
 - Player's gender (male/female).
 - Player's ethnicity/race (African, African-American, Asian, Caribbean, Hispanic, mixed, Native American, white, other).
 - Player's school grade level.
 - Player's academic grade point average (A-F: Please translate numeric GPAs as 4.0=A, 3.0-3.9=B, 2.0-2.9=C, 1.0-1.9=D, 0-0.9=F).
 - City, state, and ZIP code.

Please prepare your child/ward with this information. Players will not provide any personal contact information or their names.

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- Players will complete an introductory module, level one of the game, and level two of the game.
- The game will track all player actions in a database.
- All player data is anonymous. All player activity will be logged to the player’s made-up user name and password.
- Throughout gameplay the *NASA Game* will ask each player to report his or her level of skill and challenge. The prompt will ask two questions:

When you were prompted. . .

| | Low | | | | High | | | | |
|--|-----|---|---|---|------|---|---|---|---|
| How challenging was the activity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| How skilled were you at the activity? | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Any foreseeable risks or discomforts. There should be no risks associated with this study beyond those normally experienced in everyday life. Participation by players is voluntary. They may withdraw from the study at any time. Players may withdraw from the study by closing their web browser. There is no penalty or loss of status to players who withdraw; however, they will not be able to access the postgame resources or replay the game.

Benefits to subject or to others that might result from this research. Study participants will have fun while learning about NASA science. The results of this important research will enhance the effectiveness of instruction.

Alternative procedures or courses of treatment. There are many ways to deliver instruction; the *NASA Game* is one way. The *NASA Game* is designed to prepare players for future learning. The project does not provide alternative instructional delivery systems for teaching about NASA science.

Confidentiality. All data collection is anonymous. No player names, contact information, or personal identifiers will be collected by the *NASA Game*. Please note that for each player the game system will track all gameplay and all usage of the site.

Participant rights. The participant has the right to ask pertinent questions about the research, subjects’ rights, and research-related injury to the subject. Subjects can contact the *NASA Game* research team through e-mail at [email address to be determined] or by telephone (304-243-2479) between 9:15 a.m. and 2 p.m. Eastern time Monday through Thursday.

| Project Lead Researcher | Project Research Assistant |
|---|---|
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Participant responsibilities.

- Keep the details of the *NASA Game* a secret from others.
- Keep the registration access code a secret from others.
- Keep user name and password secret.
- Never share user name and password.
- Never let anyone else use his or her user name and password to access the game or site.
- Make sure the computer station is ready to play the game. [details to be determined once game is developed]

NASA Game expectations.

- The *NASA Game* expects each player to try hard to accomplish game goals.
- The *NASA Game* expects each player to complete the entire study session.
- The *NASA Game* will track all player interaction with the *NASA Game*.

Institutional Review Board. The Institutional Review Board at Wheeling Jesuit University has approved this study. Participants with questions about their rights as human subjects may contact the board chair, Dr. Beverly Carter at 304-243-2340 or carter@wju.edu.

By giving my oral consent to a *NASA Game* recruiter, I am agreeing that my child/ward may participate in the *NASA Game* study, as summarized above. My child/ward is 13-17 years old. My child has the physical and mental ability to see and react to the computer screen images, hear the computer's audio signal, and physically manipulate the mouse and computer keyboard. I realize that the *NASA Game* password and access code must remain confidential, and my child/ward may not share it with any other person. I realize that my child/ward must give an honest effort to play the *NASA Game* from the beginning of the study session to the end although my child may withdraw from the study by closing the computer browser at any time. I realize that my child may access *NASA Game* any time, 24/7. The *NASA Game* will continue to provide activities and resources to players after they complete the study.