

***Fair Play*: Eliciting perspective-taking through gameplay**

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Abstract: *Fair Play* is a game in which people can explore what it means to be a minority in academic STEM. As an African American graduate student, players will experience the hardships common to every graduate student, including the stress related to obtaining funding, writing papers on original research, and defining a unique scholarly identity. These experiences are embedded in a rich narrative that encourages players to take on the perspective of the main character. The goal of *Fair Play* is to raise awareness about people's implicit racial biases and to challenge players to identify and act on these biases in real-time. What implicit biases do people have? How do they affect one's academic career? What strategies exist to reduce such biases? These are the kinds of questions at the heart of the game.

Fair Play

Fair Play is a web-based game designed to reduce implicit biases (i.e., unconscious assumptions that arise from group stereotypes) against underrepresented individuals in academic science, technology, engineering, mathematics, and medicine (STEMM). The target audience for *Fair Play* is graduate students and faculty members in these fields.

The game draws from research literature on game studies and implicit biases to create a world that models the intersection of commercial game design and top tier research. The core of *Fair Play* centers on implicit biases and their effects on individuals in an academic setting. We all are biased to some degree, and these biases stem from stereotypes we inherit from our culture (Devine, 1989). For instance, studies show that the majority of Americans tend to have more negative implicit associations with African Americans than with White individuals (Nosek, et al., 2007). These biases, whether consciously endorsed or not, have a cumulative effect and contribute to the lack of diversity in academia (Minikel-Lacocque, 2012). The goal of *Fair Play* is to present biases in a realistic way through a rich narrative to raise awareness about their impact. By experiencing racial biases in the game, players will come to identify and learn the role that biases have in the lives of minorities in academia.



Figure 1: Jamal explores a location, the student union, in *Fair Play*.

Fair Play's gameplay and mechanics are inspired by point-and-click adventure games in which players explore the setting and embark on quests to advance the story. In *Fair Play*, players take on the perspective of Jamal Davis, a young African American student who has recently been accepted into graduate school and has plans to build a successful academic STEM career for himself. Over the course of the game's five chapters, Jamal meets peers and mentors who can propel him to (or hinder him from) achieving his ultimate goal of presenting his first research paper at an academic conference. As Jamal, players must conquer each chapter's objectives such as finding an advisor and doing literature research for a paper while they witness how implicit racial biases may affect the undertaking and outcome of these tasks.

The game provides ample opportunity for players to experience implicit biases as they navigate the world of academia through the perspective of Jamal, particularly in conversations with other characters and through encounters with objects in the game environment. As bias scenarios occur, they are recorded in an in-game almanac along with their formal bias concept names and definitions for future reference. This information is particularly useful when players choose to identify, when prompted, certain biases they encounter – a correct (or incorrect) identification can influence future events in the game.

It is through social interactions with other characters, as a form of role-play, that *Fair Play* simulates real-life bias encounters. By actively assuming the role of Jamal and experiencing bias through his interactions, we hope that our players will gain increased levels of perspective-taking, empathy, and awareness of biases against underrepresented individuals.

References

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