

New Age Mages: An Interactive Way to Explore and Subvert Gender Biases

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Abstract: From a young age, children are exposed to societal standards of gender and gender roles and, by extension, inherent sex-based biases, which can become inculcated into their worldview. These biases affect their daily lives negatively in ways that can seem almost natural unless specifically pointed out. Table Top Role Playing Games (TTRPGs) are pen-and-paper games that revolve around collaborative storytelling in a shared, collectively imagined and built world, usually involving 2 to 5 players. TTRPGs provide a safe, controlled environment to mimic social interactions in a way that video games and other forms of media cannot. This paper introduces a new TTRPG, *New Age Mages*, aimed at a younger audience, with the goal of introducing the concept of biases and helping them to see things from a different perspective. In *New Age Mages*, players interact with a world where magic is commonplace as students that have recently unlocked their magic, while a Game Master (GM) narrates the world as determined by the players' choices. The game's magic system allows it to mimic the influence and/or impact of modern-day gender roles and biases without referring to them directly while remaining simple and easy to learn for a new player. The game also aims to subtly incentivise the Players to make decisions that would be different from what they might usually make, and promote trying to understand the others' points of view. We believe this game will be useful for those seeking to help children gain a better understanding of gender roles and their subversion. We use a questionnaire based on the Gender Role Attitudes Scale (GRAS) to measure the impact gameplay has on players' ideas of gender roles. We also test the game with some initial gameplay experiments among a smaller audience that is more familiar with TTRPGs and present the results. Our work explores not only the ability of TTRPGs to influence perspectives and opinions, but also doing so specifically in the space of understanding gender roles among a younger audience.

Keywords: TTRPG, Gender Bias, Games-Based Learning

1. Introduction

1.1 Table Top Role-Playing Games

Table Top Role-Playing Games (TTRPGs) are collaborative storytelling games that add elements of randomness and gamification to what would otherwise be a linear discourse. Usually, in a TTRPG, the group consists of a Game Master (GM) and multi-players who create and play Player Characters (PCs). The GM acts as the facilitator, guiding gameplay, building the world and narrative, while ensuring the rule adherence. TTRPGs provide an immersive experience for players as they explore a sandbox world (presented by the GM) through their PCs. This allows them to explore concepts and ideas they may not be able to in real life. Alongside presenting the world and Non-Player Characters (NPCs), the GM creates a custom story built around the PCs to explore and play through.

1.2 Gender Roles and Biases

Gender roles (and, by extension, gender biases (implicit and otherwise)) are so heavily ingrained into the world around us it affects us in smaller, almost imperceptible ways. While there have been and are movements attempting to shift worldviews to be more open-minded, this may take many lifetimes. Gender biases affect everyone (no matter how much we may believe otherwise) and, therefore, we feel we should attempt to foster change. With this intent, we have created a TTRPG to attempt such. In this paper, we detail the specificities of the gameplay that lend themselves to this effort and the preliminary experiment we conducted to measure if it has the intended effect of shifting implicit gender biases towards a more open-minded point of view.

1.3 Motivation

TTRPGs are a highly social activity and have long been established in the therapeutic and psychological industries to be very powerful tools (Hawkes-Robinson, 2011). Additionally, they are currently gaining traction in fields such as education to enhance the learning experience (Hawkes-Robinson, 2011). While there are comparatively

few studies on RPGs (of which TTRPGs are a subset), we believe there is enough supporting evidence to pursue this direction of intervention.

2. Background

Games-based learning has gained much traction due to the variety of skills it can impart to learners. Studies have found that, while there is empirical evidence to support the effectiveness of this, games must be built for learning-based outcomes to truly be effective (Hainley et al, 2016). However, there are insufficient studies comparing traditional teaching to games-based learning (Hainley et al, 2016). The study of serious games as educational tools has found them effective, with games imparting higher skills requiring a longer playtime to master (De Jans et al, 2017). One study by Mortara et al (2014) used pre- and post- questionnaires to evaluate the effectiveness of a serious game on cultural awareness (Icura) and found that designing with the outcome in mind allows for the mechanics to be designed correspondingly and also a better understanding of the data collected and analyses to conduct when evaluating the game.

Garcia-Cueto et al (2014) measure sexism against women but not men, and do not consider it from the perspective of gender equality. They introduce a scale that considers two factors: Transcendent and Sexist attitudes, which represent the equality-based and sexist attitudes respectively, in order to address this gap.

TTRPGs have traditionally been considered social interactions or collaborative (rather than competitive), and let players progress skills such as creativity (Coe, 2017; Dyson et al, 2016) and social skills (Henning et al, 2024). It has also been found that people who play TTRPGs are more empathetic than their counterparts (Rivers et al, 2015; Merilainen, 2013). Additionally, TTRPGs can facilitate exploration of gender identity, as shown in George et al (2023). A work by Gutierrez (2017) takes a look at TTRPGs as an effective therapeutic tool for adolescents in many aspects. Additionally, it has been found that engagement is important in therapy as patients that are more involved more easily reach recovery (Abdel-Salam and Gunter, 2013). TTRPGs allow for higher engagement as players can easily identify with their PC and use them as a buffer to explore ideas in a safe space, allowing players freedom to experiment with things such as gender identity (many modern TTRPGs are non-discriminatory) and the like. However, players tend to, after a variable period of experimentation, prefer to play characters closer to themselves (as shown in Woodley (2024)). This allows practitioners to tailor narratives as necessary.

Additionally, a study on the communication aspect of TTRPGs (Adams, 2013) found that players' real world needs could be satisfied through in-game interaction i.e. the application of TTRPGs has use for multiple aspects of a person's life (Gutierrez, 2017). The findings and analyses from prior studies using games for knowledge transfer, social interactions, and awareness creation form the basis of the design of the TTRPG we developed and tested. To the best of our knowledge, our application is unique and priorly untested.

3. Methodology

The methodology for this experiment is two-part. One part is the game design, as the components of the game have been built specifically for our stated purpose, with a few significant shifts from TTRPG standard practice. The other is the questionnaire used to measure implicit gender bias and the effect of brief exposure to gameplay on participants' views.

3.1 Methodology: Game Design

New Age Mages (NAM) is a TTRPG for 3-5 players (including a GM) set in a world where all people gain magic at the age of 16. The magic is elemental and expresses itself in two ways: waxing (create and destroy the element) and waning (manipulate and weave the element), which students are taught to harness. Players play students who have recently unlocked their magic and are beginning to utilise it.

The mechanics for this game drew inspiration from *Apocalypse World* (Baker, 2013) (the playbook configuration) and the *Belonging Outside Belonging* system (Alder, 2020) (tokens and their usage) via *Apocalypse Keys* (Nedjadi, 2022) (the existence of Conditions). The binary magic system and the way Conditions are handled (amongst other things), are unique to the game (although the magic system does use a set of basic elements as

its foundation). However, as this game was specifically formulated for this project, the various aspects of the game design form a cohesive system that helps nudge players (and PCs) towards certain behaviour.

The game is set in a modern fantasy setting, which is explained in detail in [NAM](#). NAM, as with most TTRPGs, is an open-world setting so players are encouraged to advocate for their beliefs. To this end, players can push back using moves such as *Interact with Someone* or any other move that fits the fiction.

During the experiment, for the sake of consistency, all groups followed the same overall sequence of events, both in terms of gameplay and the experiment itself.

3.1.1 Gender Roles and Portrayal

NAM uses thinly veiled gender role equivalents - its magic system. The magic system is elemental in nature (using 8 elements as Playbooks) and there are two main ways in which magic is expressed, waxing and waning magic. Each PC is randomly assigned their expression of magic, to reflect that biological sex is not a choice.

The abilities of magicians with waxing and waning magic and how they are treated in-game are a direct reflection of real-life gender roles. Waxing magicians are considered to be stronger, more competent, and better suited for positions of power. Waning magicians are considered to be weaker and less powerful, and it is believed that they should only occupy positions supporting waxing magicians. In gameplay, the GM portrays the world and its residents as favourable towards waxing magicians and dismissive of waning magicians.

While the two kinds of magic users with different social standings and an inherent social preference for one of these two types could be used as a depiction of any kind of bias, (e.g. race, sexual orientation, etc.) we focus on gender identity, since biological sex (which is incorrectly correlated directly to gender), is often perceived to be a clear binary between male and female, despite this being untrue. Gender identity and presentation are not always related to assigned sex (and each other), and transgender individuals (both binary and non-binary) are individuals who do not identify with the gender assigned at birth. Further, gender bias is extremely common and both the GM and the players are likely to have come across this.

While other games such as *Monsterhearts* (Alder, 2017), *Thirsty Sword Lesbians* (Walsh, 2021), and *Bluebeard's Bride* (Whitney, Kelly, Richardson, 2018) all explore queerness, femininity and a lack of agency, NAM is directed in its approach and expects a younger and less familiar playerbase. The goal of making the waxing and waning magic systems separate from the gender of the player characters is to emphasise how arbitrary the binary division can feel when it is not something one is exposed to and internalised. Additionally, the biases portrayed in the setting and shown in the game design (past just waxing and waning magic) are reflective of these gender biases.

3.1.2 Moves

In [NAM](#), there are 3 types of moves: Basic Moves, Mage Moves, and Roleplay Moves. The Basic Moves are moves that every player has access to at all times (so long as triggering conditions are met). They add an element of randomness to what would otherwise be a linear writing process. There are 5 Basic Moves - together they cover the range of general probabilistic actions a PC might take.

Mage Moves and Roleplay Moves are unique to each expression of magic (waxing and waning magicians have access to different moves). The Mage Moves allow the PCs to access their magic. The Roleplay Moves influence player behaviour - providing benefits for having their PCs act in a certain way (something we hope carries over to the players themselves in the real world). There are 3 options each for Roleplay Moves, and players choose 1 when creating their character. This cannot be changed.

3.1.3 Roleplay Beats and Conditions

Roleplay beats give players Tokens. Each Roleplay Beat encourages positive behaviour in the PCs, and meeting these Roleplay Beats allows the player to gain 2-4 Tokens each time. There is no maximum limit to the number of Tokens players can hold at a given time.

While many TTRPGs have systems for combat, NAM does not as physical conflict is not something we wish to encourage. Instead of a physical harm mechanic, NAM features Conditions, which are emotional effects that

befall a character. Examples include Scared, Uncertain, etc. The GM asks a player to mark a specific Condition (as appropriate) if the fiction requires it.

The details of each playbook's Roleplay Beats and Conditions are found in [NAM](#).

3.1.4 Rolls and Tokens

NAM uses 2 six-sided dice to induce randomness (2d6). When a player rolls, they decide to spend up to 2 Tokens and roll the dice. After rolling, they can choose whether to add or subtract the Tokens spent. The Tokens must be spent in one direction i.e. spending 2 tokens means a player cannot add and subtract 1, leaving them with the same result.

Under specific circumstances, the GM may ask the player to roll with Benefit or Consequence, in which case the player rolls 3d6 with Tokens and removes one die of their or the GM's choice (if rolling with Benefit or Consequence respectively). The aim of these rolls is to give/take power from the player, depending on whether they are rolling with Benefit or Consequence.

There are 3 success tiers to NAM moves. Success tiers are how the results of the rolls are interpreted.

[0, 5] is an undersuccess. A PC's actions fail because their efforts were somehow insufficient.

[6, 8] is a success. A PC's actions succeed in the way they intended.

[9, 14] is an oversuccess. A PC's actions fail because their efforts were over-exuberant.

3.1.5 Changes to Drawn-Up Systems

In *Apocalypse World* (Baker, 2013) and, most *Powered by the Apocalypse* (PbtA) games, playbooks provide archetypes for players when creating and playing their characters. In contrast, NAM uses playbooks to allow players to choose the elemental type of magic they use. While each playbook has a unique combination of Conditions, all other inter-playbook differences are cosmetic in nature. This was done in the interest of simplicity for both younger audiences and newer players.

While *Apocalypse Keys* (Nedjadi, 2022) has a unique combination of Conditions that we drew upon, the Conditions in NAM are far less hard-hitting. The game mechanics of *Apocalypse Keys* have consequences if all 4 Conditions are marked and they may only be cleared via specific moves. In contrast, in NAM there are no special consequences to marking all 4 Conditions and players may clear a Condition at any time by spending 3 Tokens.

3.1.6 Improvements to Initial Game Design

Due to player feedback, a few mechanical changes to roll and Token systems were made to NAM to increase playability.

Initially, we used 3d6 with the following tiers:

[3, 6] as an undersuccess

[7, 10] as a success

[11, 15] as an oversuccess

We found that reducing the dice rolled to 2d6 made the tokens more consequential.

Additionally, previously players could choose how many Tokens to spend before the roll, up to 3 Tokens and these could only be added. The change in the amount of Tokens players could choose to spend up to (from 3 to 2) was a direct consequence of the change in dice. Allowing players to choose to add or subtract their spent Tokens after having rolled added versatility, and made Tokens feel more effective.

During initial playtesting, we found that players felt that rolling with Benefit and Consequence (at the time, rolling and removing the die closest to/furthest from (in the case of Consequence/Benefit respectively) made no difference as had similar statistical effects (driving the result closer to a success). Therefore, this was changed to make Benefit and Consequence more effective.

After these changes were made, we found that players found gameplay more enjoyable.

3.1.7 Module

For this experiment, players were presented with the same module and series of events each time - they unlocked their magic, went through a day of classes with a minor interruption, went to the local mall, had a friend go missing, and then rescued them.

While in standard TTRPGs there are usually multiple modules for the sake of variance, we used a standard module and series of events to reduce variables.

3.1.8 Example Gameplay

As mentioned, TTRPG gameplay takes place almost conversationally, with the GM and players taking turns describing the environment and NPCs (the GM) and PCs (players). The following is an example of what gameplay may look like (please note that this is inspired by but not directly taken from a real playthrough):

Player 1 has a waxing pyromancer, Mirai and Player 2 has a waning hydromancer, Rafael. They meet their fellow student, Andrea, at school after they receive their powers.

Andrea: Hi Mirai! Congratulations on your powers. How does it feel?

P1(Mirai): It's great. Do you want to see?

Andrea: Absolutely.

P1(aside): I want to try to create a puff of flame in my hands

GM: That is a mage move, you can roll for Create.

P1: I am spending one token. Oh I rolled a 12, so I can't really save it, but the token brings it to 11.

GM: With an oversuccess, you create a large flame that licks the ends of your hair for many seconds before going out. Take the condition Reckless.

Andrea: Well, that was pretty impressive, especially for your first day. Do you want to volunteer for the school festival?

P1(Mirai): We'd love to. You can put both our names down, right Rafael?

Andrea: Oh...actually, we'd rather only have waxing mages for this. Wouldn't want to overwhelm anyone with the work, you know.

P2(Rafael): I'm sure I wouldn't be overwhelmed, but I'm not interested anymore.

Andrea: Well...Mirai we'd still love to have you! Think about it and let me know. Rafael...err...good luck, I'll see you around.

P2(aside): I'd like to use the water in my bottle to splash Andrea in the face.

GM: That's a mage move, you can roll for Manipulate.

P2: I'd like to spend one token. I rolled an 8 so I will add the token to make it a 9 and keep it a success.

GM: Good work. You pull the water from your bottle and it snakes through the air before splashing Andrea in the face and dripping onto the floor. They seem shocked.

P2(Rafael): I'm so sorry. I hope I didn't...overwhelm you.

3.2 Methodology: Questionnaire

The questionnaire used for this experiment was based on the Gender Role Attitudes Scale (Garcia-Cueto et al, 2015). The Gender Role Attitudes Scale (GRAS) measures implicit gender bias in two parts, with each question measuring one or the other:

Sexist Attitude: This measured attitudes that were sexist, i.e. gender-role conformative. There were 7 questions measuring this in each split segment of the questionnaire.

Transcendent Attitude: This measured attitudes that were assessed as defenders of equality from an egalitarian perspective. There were 3 questions measuring this in each split segment of the questionnaire.

Each question provided a simple statement and asked participants to rate them on a scale of 1 to 5, with 1 being 'heavily disagree' and 5 being 'heavily agree'. For a measure of open-mindedness, Transcendent Attitude answers should tend towards 5, while Sexist Attitude answers should tend towards 1.

While most of the questionnaire remained the same, there was a change in the way it was administered and one minor change: the questionnaire was split into two halves, with one being administered before gameplay and one post. Additionally, some questions were slightly reworded to have more precise intent (Table 1), as the original questionnaire referred to sex as the social marker for the gender binary rather than gender identity. For example, 'People can be aggressive and understanding, regardless of their sex' was reworded to 'People can be aggressive and understanding, regardless of their gender'.

Table 1: Changes made to the GRAS Questionnaire

GRAS Statement	Questionnaire Statement
People can be aggressive and understanding, regardless of their sex (T)	People can be aggressive and understanding, regardless of their gender (T)
People should be treated equally, regardless of their sex (T)	People should be treated equally, regardless of their gender (T)
GRAS Statement	Questionnaire Statement
Children should be given freedom depending on their age and how mature they are, not depending on their sex (T)	Children should be given freedom depending on their age and how mature they are, not depending on their gender (T)
Boys have the same obligations to help with household chores as girls (T)	Everyone has the same obligations to help with household chores, regardless of gender (T)
Household chores should not be allocated by sex (T)	Household chores should not be allocated by gender (T)
We should stop thinking about whether people are men or women and focus on other characteristics (T)	We should focus on characteristics other than gender (T)
My partner thinking that I am responsible for doing the household chores would cause me stress (S)	My partner thinking that I am responsible for doing the household chores would cause me stress (S)
The husband is responsible for the family so the wife must obey him (S)	The husband is responsible for the family so the wife must obey him (S)
A woman must not contradict her partner (S)	A woman must not contradict her partner (S)
I think it is worse to see a man cry than a woman (S)	I think it is worse to see a man cry than a woman (S)
Girls should be more clean and tidy than boys (S)	Girls should be more clean and tidy than boys (S)
Men should occupy posts of responsibility (S)	Men should occupy posts of responsibility (S)
I think boys should be brought up differently than girls (S)	I think people of different genders should be brought up differently (S)
I think it is right that in my circles of friends, my future domestic activity is considered more important than my professional activity (S)	I think it is right that in my circles of friends, my future domestic activity is considered more important than my professional activity (S)
A father's main responsibility is to help his children financially (S)	A father's main responsibility is to help his children financially (S)
Some jobs are not appropriate for women (S)	Some jobs are not appropriate for women (S)
I accept that in my circle of friends, my partner's future job is considered more important than mine (S)	I accept that in my circle of friends, my partner's future job is considered more important than mine (T)
Mothers should make most of the decisions on how to bring up their children (S)	Mothers should make most of the decisions on how to bring up their children (S)
Only some kinds of job are equally appropriate for men and women (S)	Only some kinds of job are equally appropriate for people of all genders (S)
In many important jobs it is better to contract men than women (S)	In many important jobs it is better to contract men than women (S)

4. Experimental Setup

This experiment was conducted for 14 participants in groups of 2. Each session was 3 hours, split into half an hour for pre- and post- questionnaires, half an hour for explanations of the setting and mechanics, and 2 hours of gameplay. Each session followed the same series of events: a setting description, the pre-questionnaire, an explanation of mechanics, gameplay, and the post-questionnaire. At no point in time was identifying data such as names collected from the participants.

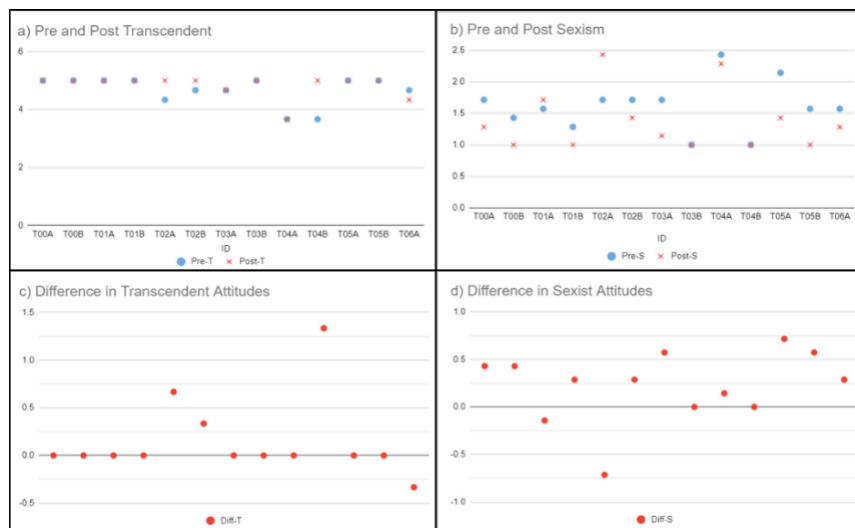
While there were 14 participants total, one was repeated across sessions and their results for their second session were not considered. The 13 participants ranged from ages 22 to 42 and all had some prior experience with TTRPGs (not this game). There were 2 female, 7 male, and 4 nonbinary participants.

The participants were all experienced players of TTRPGs, with all players having played both more rule-intensive, heroic fantasy games, such as Dungeons and Dragons, and other rules-light PbtA games. The players were also all already aware of gender roles and biases, and many were nonbinary. This is not the intended audience, however, this was to ensure that they had experience with how PbtAs mechanics are intertwined with the premise of the game, as well as the discrimination and bias faced due to gender, and could provide informed feedback.

5. Results and Discussion

5.1 Results

The scores for the pre- and post- questionnaires were calculated separately for Sexist and Transcendent Attitudes by taking the participants' answers and averaging each section to receive their overall score. These scores were then compared pre-and post- for each category. We noticed that for Transcendent Attitudes the scores mostly did not change post game (3 increased, 1 decreased; figure 1a). The trend we saw with Sexist Attitudes was interesting: 9 decreased post-game play, 2 showed an increase, and 2 no change (figure 2b).



Figures 1: a) Pre and post transcendent attitude scores of participants, b) pre and post sexism attitude scores of participants c) Difference in transcendent attitude scores of participants, and d) difference in sexist attitude scores of participants

While recording the total tokens earned by participants throughout the game, we found no correlation between Tokens earned and gender bias scores (both Transcendent and Sexist). This may be due to the highly subjective method of earning Tokens.

5.2 Discussion

The purpose of this research was to allow questioning of biases through the use of a unique TTRPG. We considered the difference between participants' scores between their pre- and post-game questionnaires an indicator to evaluate the effect of brief exposure to gameplay. As the two sections of the questionnaires measure different things, they are evaluated and discussed separately.

5.2.1 Transcendent Attitude Scores

Generally, we see that Transcendent Attitudes either increase or stay the same, with one outlier. This is the effect we hoped to induce, however if we look at a plot of the differences between pre- and post- scores (measured by subtracting pre- scores from post-scores), we see that the observed difference is negligible (figure

1c). Cronbach's Alpha was low (0.58) and the p-value for the Wilcoxon Signed-Rank Test (0.86) (while not statistically significant) was high, indicating that the Transcendent Attitude section of the questionnaire can be an unreliable measure of Transcendent Attitude.

The sample size was small, the scores for pre- and post- were similar, and the participant set was primed to lean away from gender roles and biases. Additionally, compared to the questions for the Sexist Attitude section of the questionnaire, the Transcendent Attitude questions are vague and open-ended. With a few changes in verbiage, we believe this can be improved upon.

5.2.2 Sexist Attitude Scores

The Sexist Attitude scores of participants had higher variance with a measurable effect of brief exposure to gameplay on Sexist Attitude scores. Upon calculating the difference between participants' post- and pre-questionnaire scores (calculated by subtracting post- from pre- to maintain readability, i.e. a positive difference indicates fulfilment of the intended effect) we see significant improvements in implicit gender biases (figure 1d). Upon calculating Cronbach's Alpha (0.75) and the p-value for the Wilcoxon Signed-Rank Test (0.03), we find that not only is the Sexist Attitude questionnaire an acceptable measure of Sexist Attitudes in participants, the difference induced by brief exposure to gameplay is statistically significant.

The findings, even from the small set of participants, validate the game design and mechanics in nudging a positive change in sexist attitude.

Throughout gameplay, we received feedback (and perceived via player reactions) that players were becoming increasingly aware of the implications of the bias introduced. Most players reacted by pointing it out, out of character, and pushing back against the discrimination in-character, even when the discrimination was not directed at their PCs.

5.3 Limitations

The experiment was run on very aware participants. The reason for this was two-part. First, we wished to run the experiment with a TTRPG-experienced audience so that feedback would allow us to make changes to make gameplay better, if necessary. Second, we wished to run it with a smaller, more accessible sample size before expanding to the intended audience. All of the participants were familiar with gender bias and viewed it negatively. We were unable to draw conclusions about any differences between genders due to the smaller sample size and many participants identifying differently within the trans and non-binary umbrellas.

A second relevant is the initial questionnaire was split across the pre- and post- questionnaire, meaning that each questionnaire had only 10 questions, leading to comparatively slightly less reliable data. While this was done to prevent recall of questions and repetition of answers, we have come to understand that this is negligible due to the nature of the experiment, as after 2 hours of intermediate gameplay, it is unlikely participants would have enough recall to affect results. Additionally, by using the full questionnaire before and after gameplay, we can track changes across individual questions alongside our initial type-dependent calculations.

The third factor is the only two trackable aspects of NAM are Tokens and Conditions. During gameplay, however, we only tracked Tokens earned by players as Conditions are more heavily dependent on luck and gameplay than player biases. While, due to the nature of TTRPGs, we cannot track every interaction, some changes in mechanics would let us add some aspects that could be tracked like Tokens, letting us measure the players' implicit bias and see any changes over the course of brief/extended gameplay.

6. Conclusion

In this work we introduce a rules-light TTRPG aimed at recognising and reducing implicit gender bias among players, creating immersive and freeform gameplay that subtly reflects real-world issues. This game, *New Age Mages*, is designed to be easy to pick up and play. We explain our methodology and why it is easy to introduce this game to a new audience and encourage GMs to make this game their own as necessary (a detailed section for GMs is included in [NAM](#)). We also conduct initial playtesting for our game, showing that this game can be adapted to multiple kinds of playgroups. Furthermore, we show how to use an existing gender bias scale to measure the changes in the participants' attitudes. This work and the designed TTRPG may be helpful in understanding the effects of exposure to biases in a controlled environment, potentially over a longer period of

time (i.e. over multiple sessions of this game). Further, it may be utilised by educators trying to explain gender bias in a veiled way to a younger audience while immersing them in a situation where they face bias.

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