

Exploring multiple perspectives in citizenship education with a serious game

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Building Serious
Games

**CRITICAL
MASS**

- NGO
- Designs interactive media about societal issues, conflict dynamics, and polarizing topics

Code MBO

MBO: Middelbaar Beroepsonderwijs,
or Dutch vocational college

Code MBO: Interactive lesson plan for
citizenship course given to all MBO
students



Problems

- Sensitive topics are not discussed enough in class
- Too little space for open conversation and critical reflection
- Students insufficiently aware of their biases caused by social issues such as groupthink

Solution

A serious game that encourages students to explore diverse perspectives surrounding sensitive topics

Building Serious Games – 2020

COMMISSIONER ASSIGNMENT CRITICAL MASS, PROJECT CODE MBO

A. DESCRIPTION OF THE PROBLEM

Code MBO wants to encourage vocational college students (mbo) to approach and investigate societal issues from various perspectives. How can students navigate within an increasingly diverse world, in which they make their own, authentic choices? Instead of preparing students to become well behaved citizens, as schools still do too often, we aspire to prepare them to become active, responsible citizens instead. The project consists of different interactive experiential components, for one we commission an assignment.

What concrete issue do we want to address?

- Too often, complex and/or sensitive topics are being avoided in class;
- Schools do not facilitate (enough) open conversations, critical reflection, agree to disagree, and making mistakes;

The context of the problem is the subject "Burgerschap en loopbaanbegeleiding" (citizenship and career guidance). The subject is mandatory without qualification. Form and content vary by school and even by teacher.

Possible solutions to explore

Can you develop a game that encourage students to change perspectives in different situations? Or a game that let students practice with different levels of influence?

B: WHY A SERIOUS GAME?

We believe this problem can be addressed best by means of a serious game, due to the important aspects of experiential learning. Moreover, serious games provide a possibility to practice, fail, try again and learn by doing, in a safe environment. Direct feedback and feedback loops in a close system give the needed room for trial and error, for trying different things and seeing the outcome straight away. There is much variety amongst mbo students, in cognitive capacity and language skills. A serious game can be multisensory (less focussed on solely cognitive tasks). Dynamic levels of difficulty allow everybody to play according to their level and still be able to play together.

C. TARGET GROUP

The target group is first year vocational college major Dutch cities as with diverse

Challenges

1

**Create an open
conversation about
difficult topics**

2

**Break through existing
predispositions**

3

**Make students think
critically about their
own opinions**

Volgende stemronde 03 minuten, 41 seconden

Ik hoorde dat jullie
extra streng zijn
tegenover schapen

Diermocratie

a social simulation role-playing game

Diermocratie

- Player takes on role of a farm animal
- The farm is confronted with a problem
- Problem needs to be solved in cooperation with the other animals.
- Some animals will also know more about the situation, and have a different opinion than you.
- Everyone is needed to come to a good solution to the problem.

Briefing

Headlines

Discussion

Voting

Debriefing

Briefing

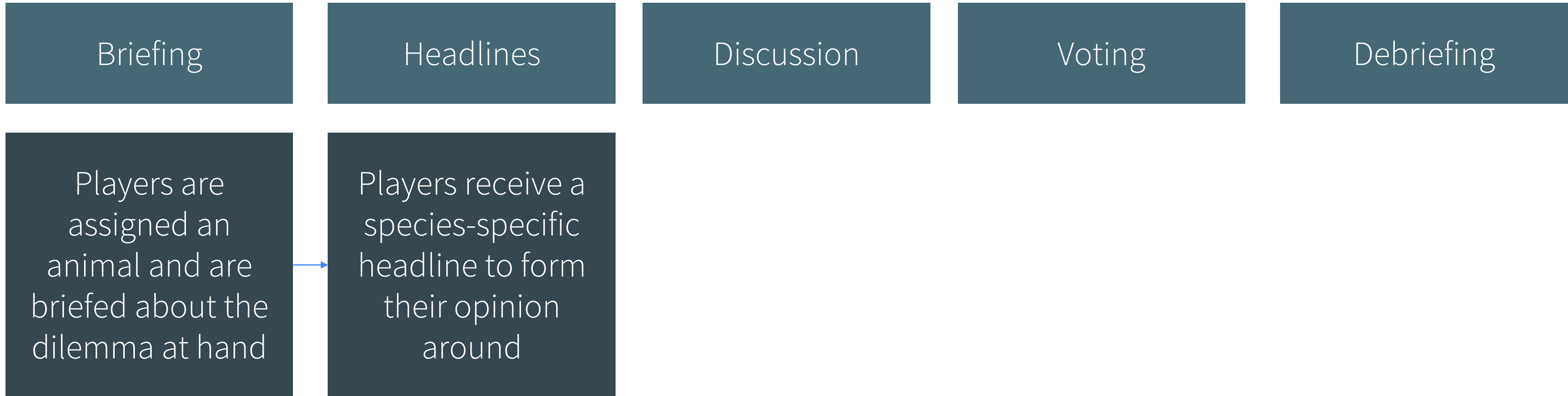
Headlines

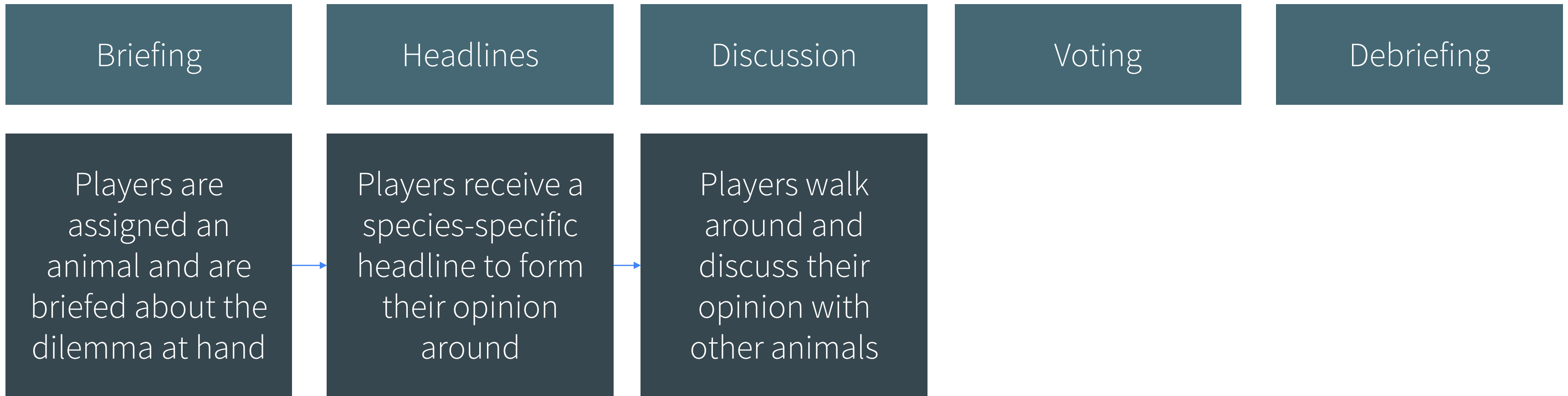
Discussion

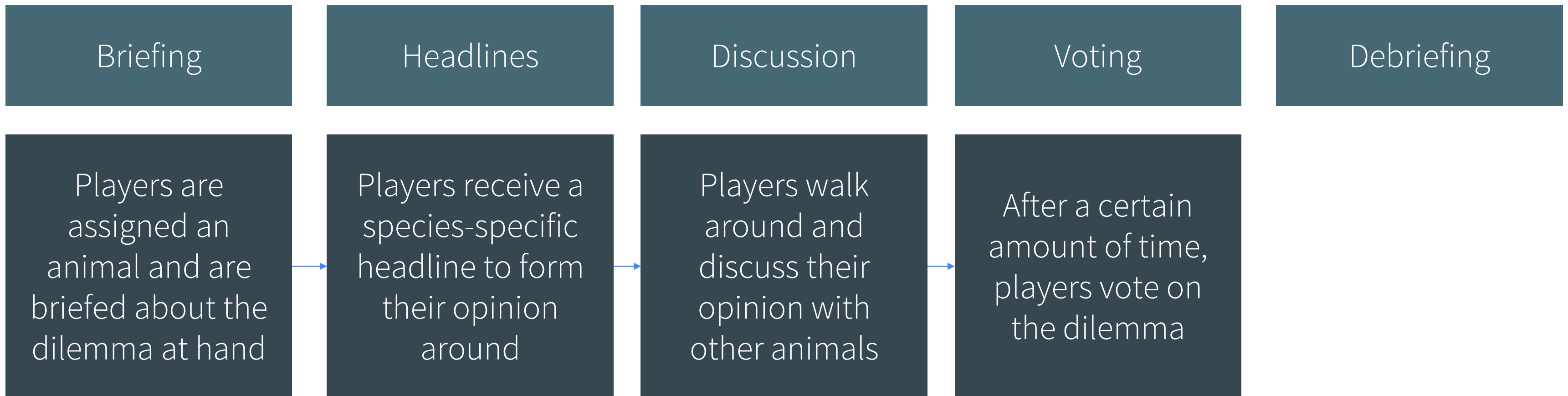
Voting

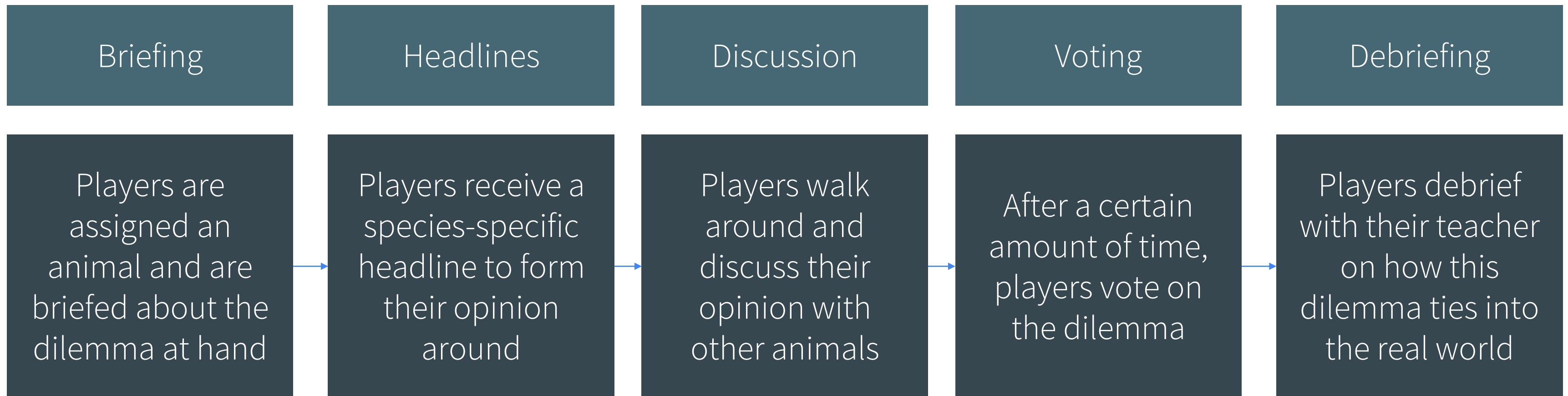
Debriefing

Players are assigned an animal and are briefed about the dilemma at hand









In-Game

Outside Game

Briefing

Headlines

Discussion

Voting

Debriefing

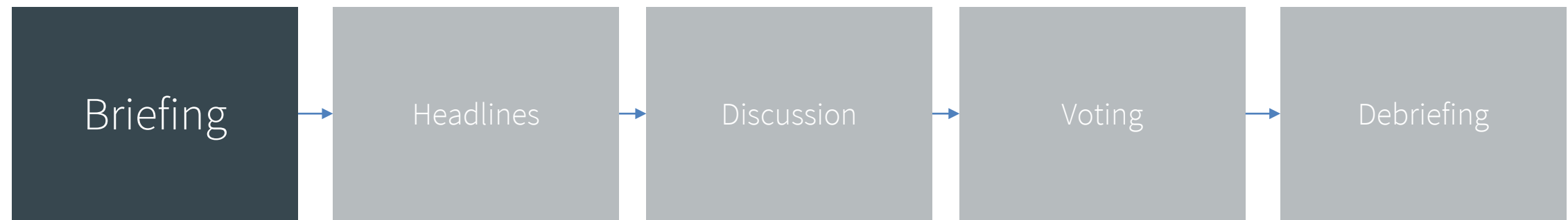
Players are assigned an animal and are briefed about the dilemma at hand

Players receive a species-specific headline to form their opinion around

Players walk around and discuss their opinion with other animals

After a certain amount of time, players vote on the dilemma

Players debrief with their teacher on how this dilemma ties into the real world



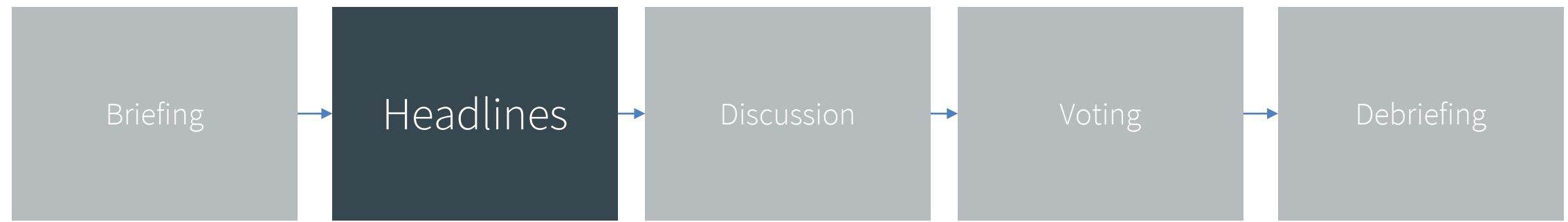
Briefing

Before class:

- Teacher chooses a dilemma from a predetermined set
- Choice of dilemma can be used to relate to the topic of their class

At startup:

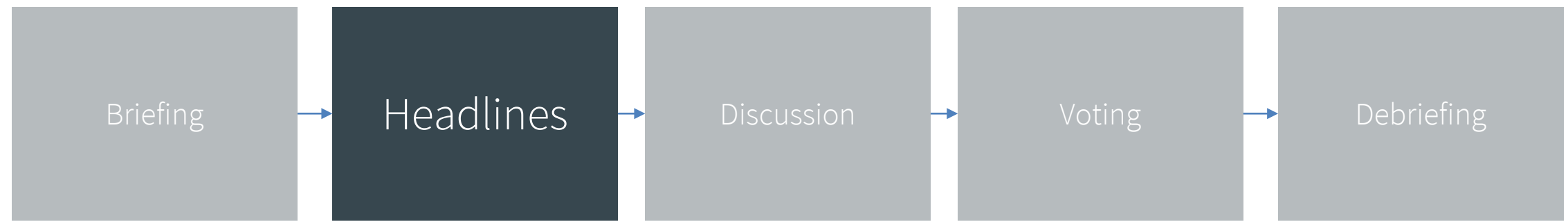
- Players are assigned a random character
- Briefing includes some information about their species



Headlines

Each species receives a headline from their own news source

- Headline relates to a decision that has to be made on the farm
- Headlines can be biased...

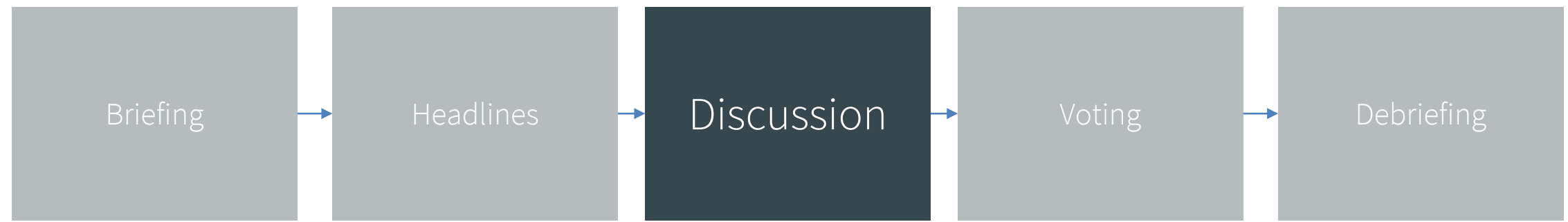


Headlines

Example: ethnic profiling

Sheep are discriminated against by dogs, and in contrast to the other animals, cannot go into the pasture whenever they want

- Sheep will be supportive of gaining more freedom for their species
- Dogs will report being unjustly accused of unfair treatment

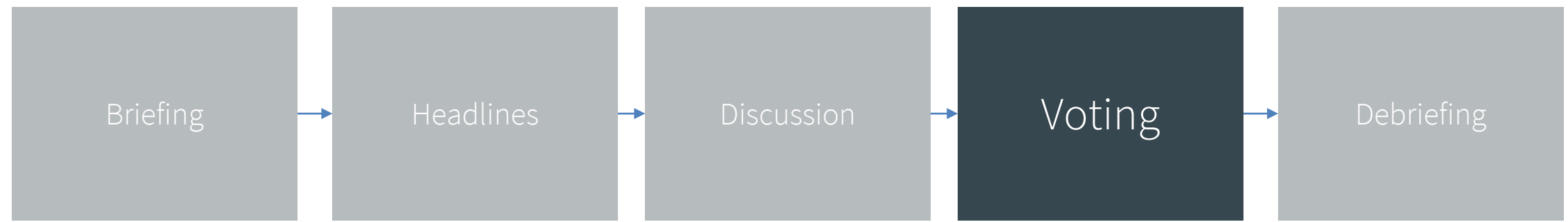


Discussion

In-game discussion emulates real-life information spread

Players need to discuss with one another to find out what the other animals know

Perhaps other players can be persuaded to vote in your favor?

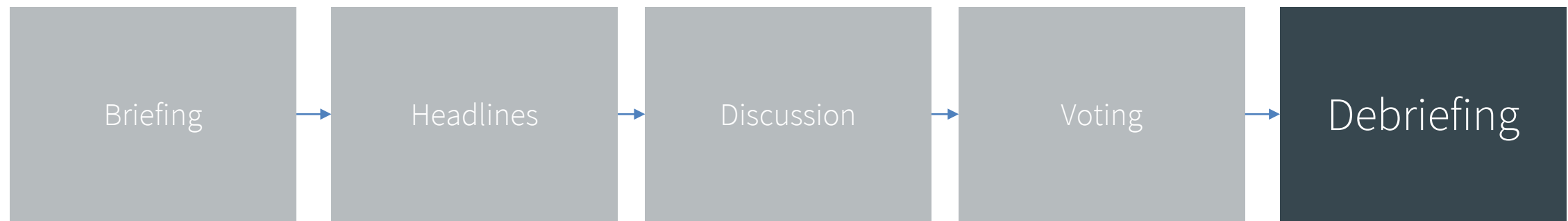


Voting

At the end of the game, players vote on a resolution to the dilemma

- Multiple predefined choices are presented
- The story concludes based on vote result





Debriefing

Players are then debriefed in a class discussion:

- Did you recognize what the scenario was about?
- What was your opinion on the headline?
- Did your opinion change after talking to other animals?

Volgende stemronde: 06 minuten, 42 seconden.

KOE KRANT

BREAKING NEWS

Interactive Narrative Design

...sterke verbetering in de manier waarop
harder gestraft dan de andere
boerderijdieren voor dezelfde
overtreding. Zo mogen schapen
niet meer het weiland in zonder
toestemming van de honden.
Andere dieren mogen gewoon
gaan en staan waar ze willen.
Schapen zijn het zat en beginnen
in opstand te komen!

EXTRA

DOORGAAN

Metaphors

- Represent current societal issues
- Create a space for open conversation
 - Safer discussion environment through anonymity and metaphor itself
- Allows exploration of different points of view
 - Encouraged by random character assignment

Metaphors

Examples of topics:

- Ethnic profiling
- Immigration
- Same sex marriage
- Conspiracy theories
- Riots

SPP framework - System

Collection of narratives, also known as proto-stories

- Main narrative is selected by teacher per-session
- Matches the topic of the current lecture

SPP framework - Process

Process consists of player interaction during play

- Players choose persuasion strategies
- Successful persuasion produces more favorable outcomes

SPP framework - Product

The product is the final narrative - what outcome do the players choose?

- Players vote on a set of predefined outcomes
- Debriefing session analyzes the generated narrative
- Players reflect on their and others' actions and viewpoints

Evaluation

Evaluation

Three playtests: One online, one hybrid, one offline

- Students briefed in short kick-off presentation
- Debriefing in small groups of ~5 plus instructor
- Participant evaluations collected via surveys (N=60)

All playtests were done with the ethnic profiling dilemma

Results

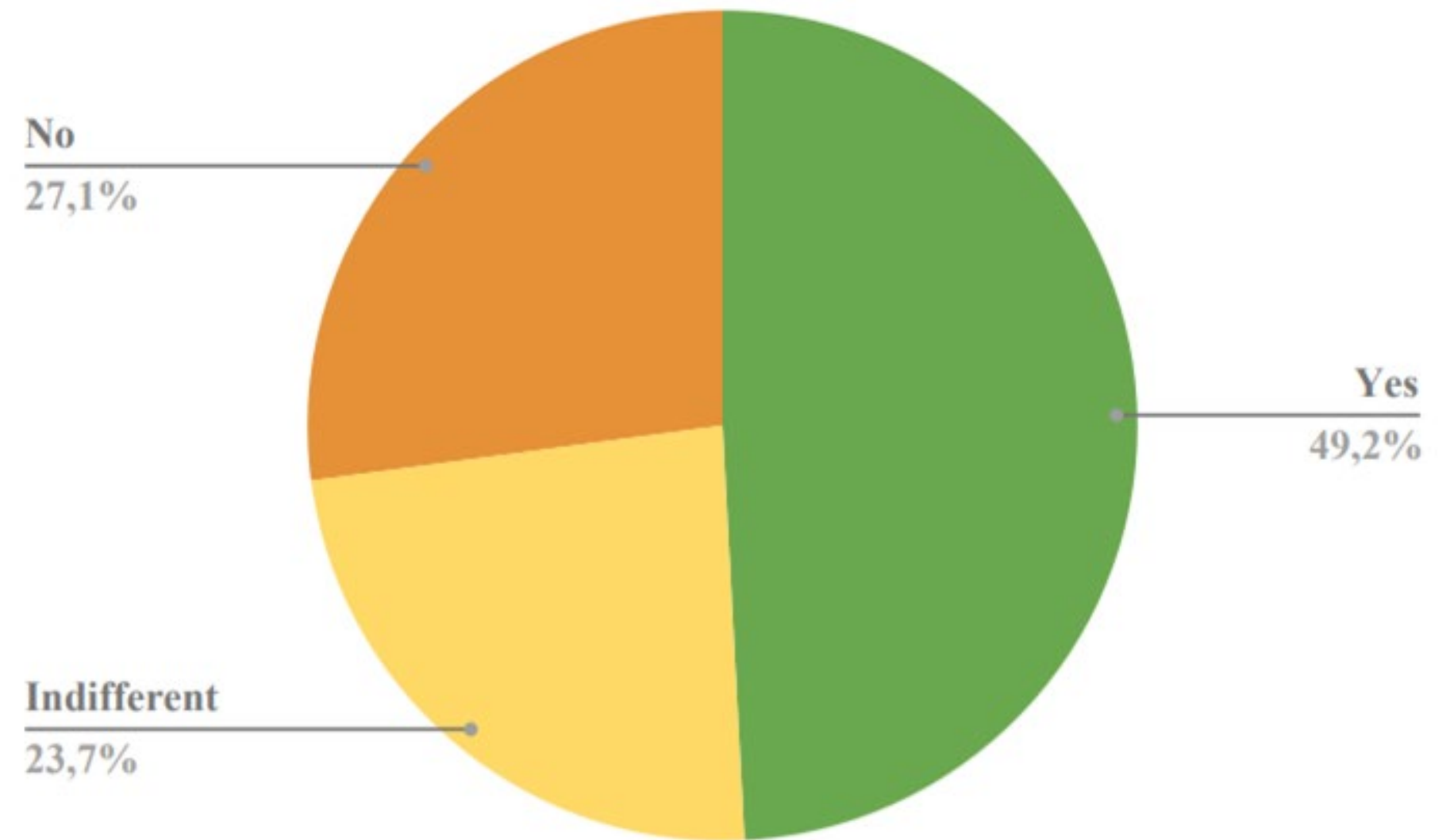
Students were more involved in-person compared to online

- Better participation during debriefing
- Higher quality discussion on the societal issue presented in the game

Results

Player communication

- ~50% of playtesters report feeling motivated to talk to others

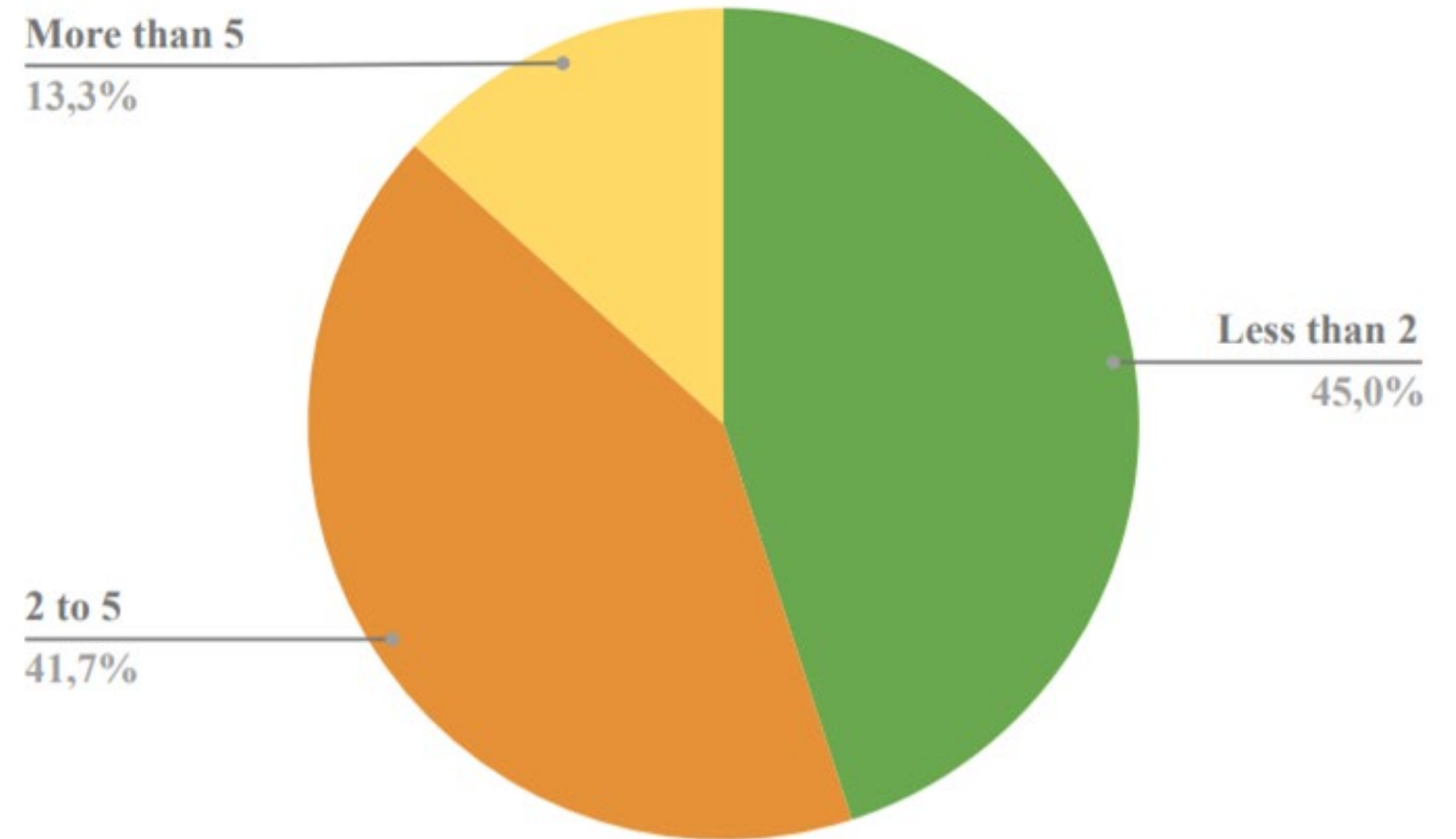


Were you motivated to talk to others?

Results

Player communication

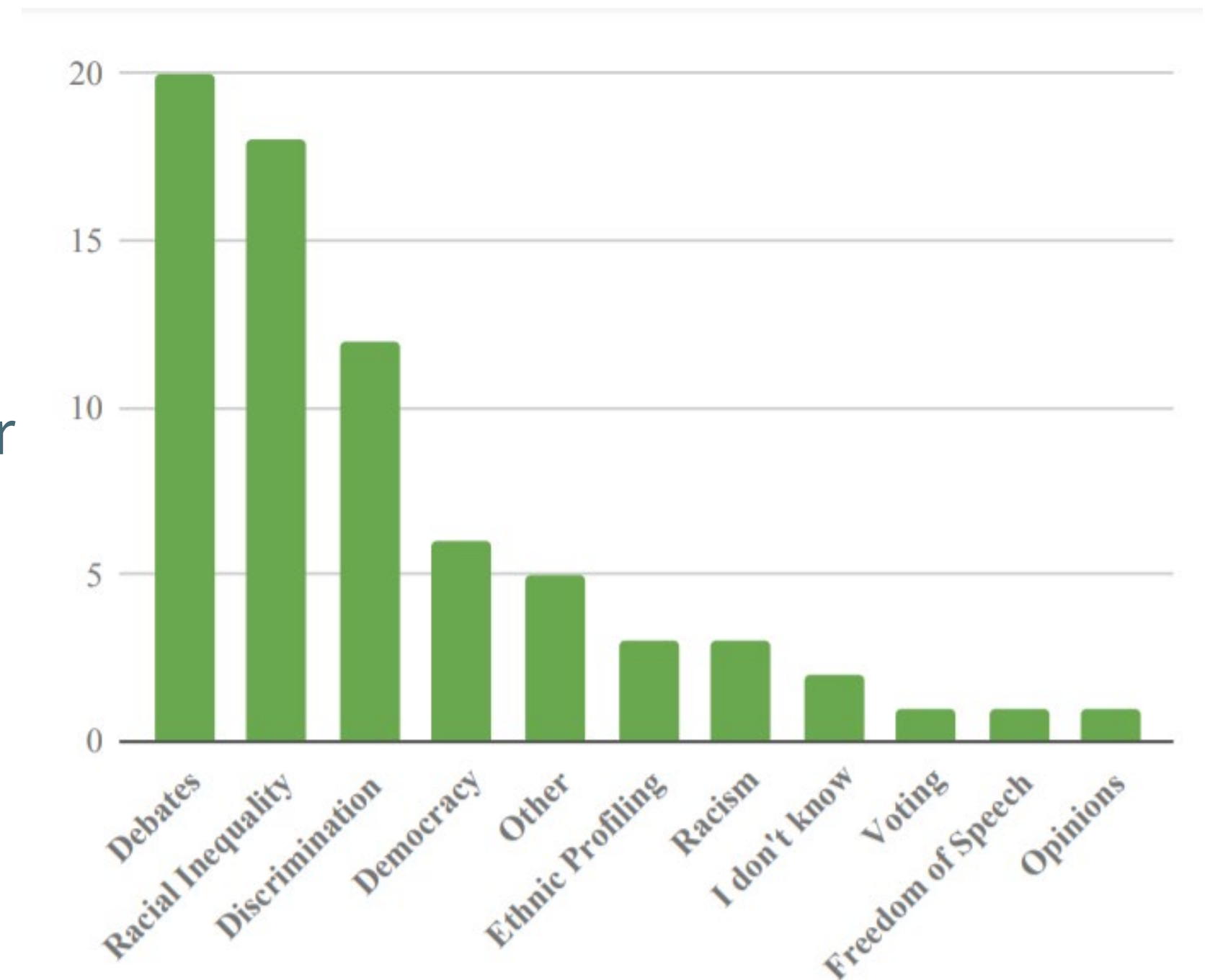
- 45% talked to less than two others
- Spam
- Unsure what to do at start of game



How many players did you talk to?

Results

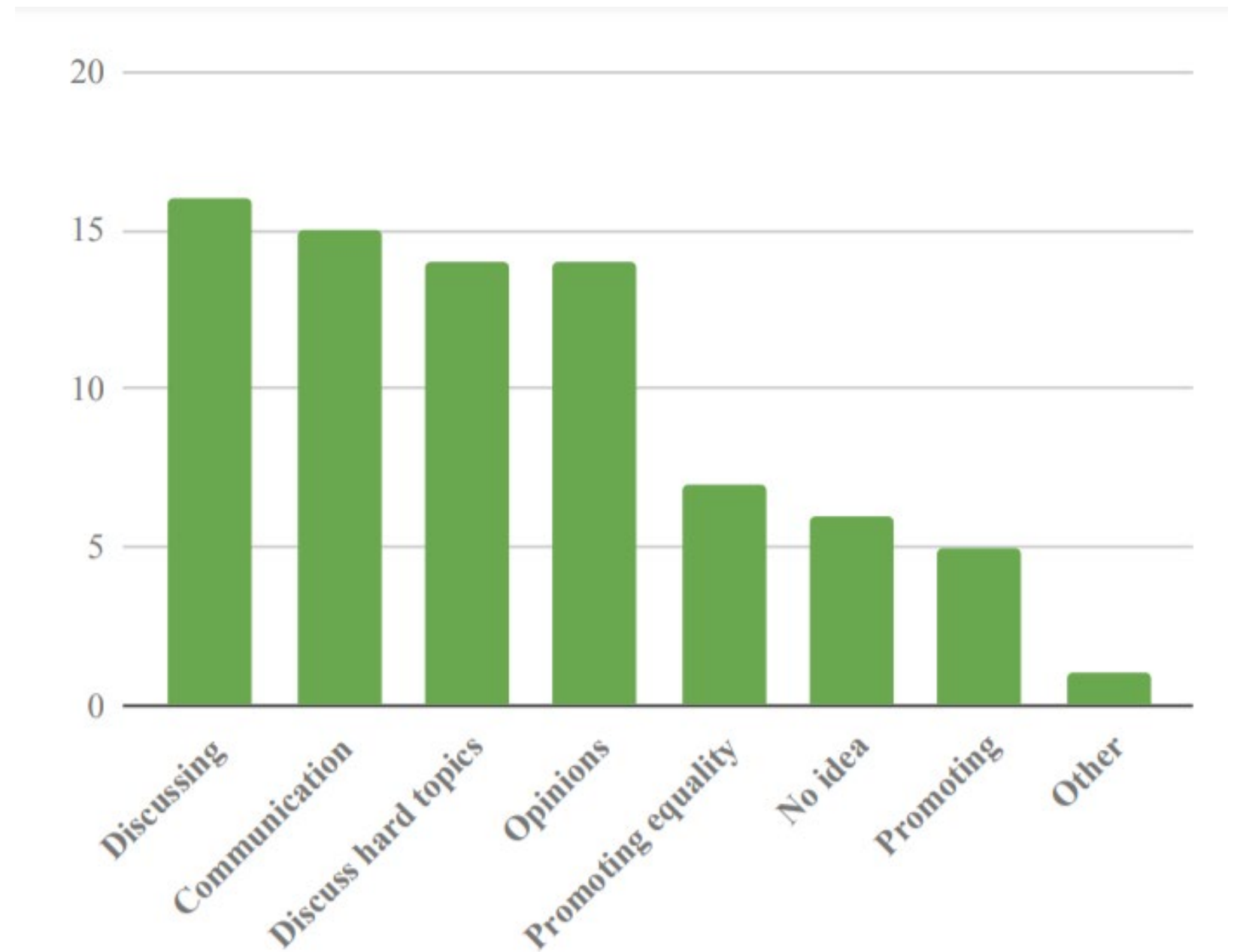
Topic and purpose of game were clear for the large majority of players



What was the game about?

Results

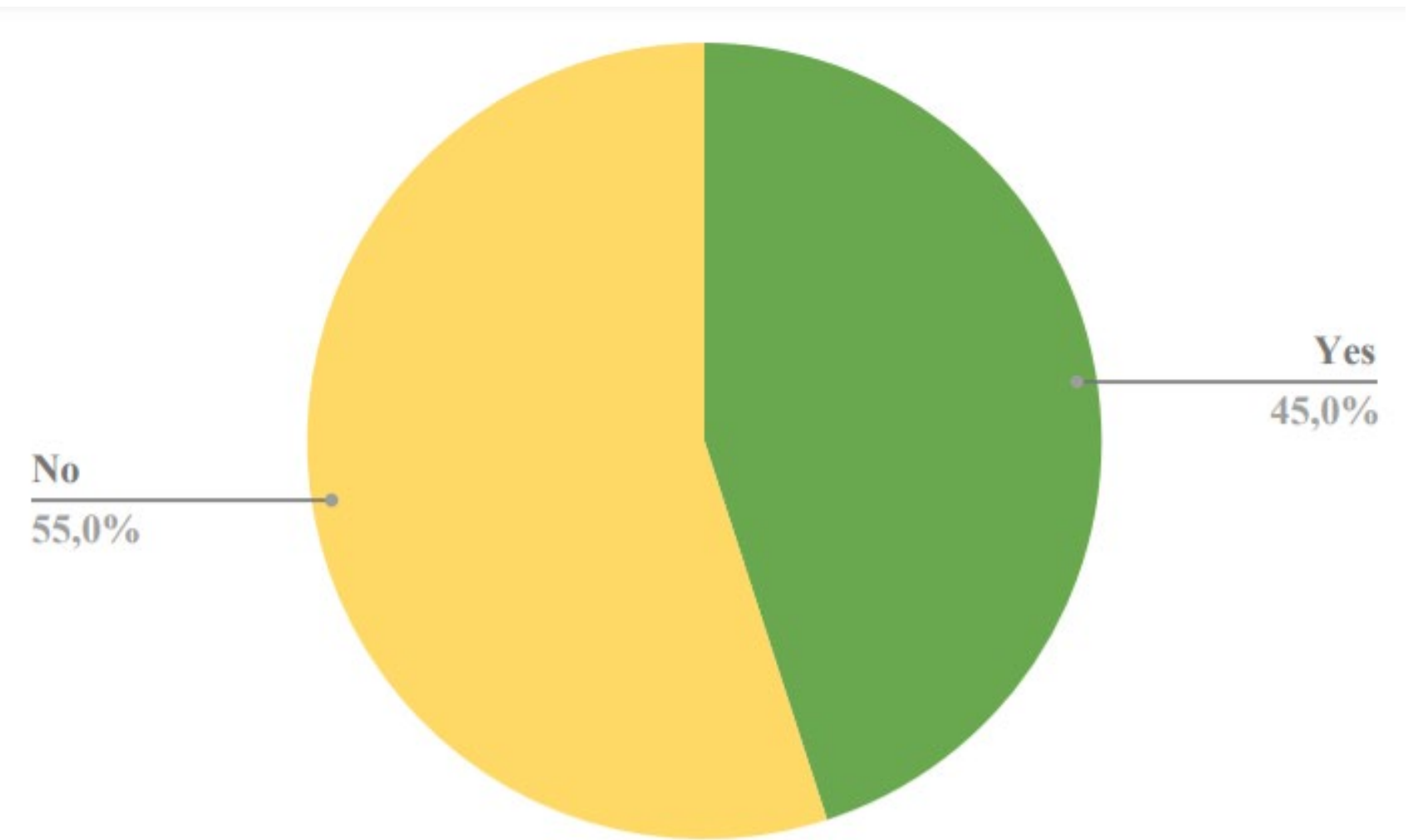
Topic and purpose of game were clear for the large majority of players



What was the goal of the game?

Results

45% of the participants reported that species had an effect on their opinion



Did your species influence your opinion?

Limitations

Limited interaction with students during development

- Resolve confusing aspects of gameplay

Hard to keep up with conversation, especially for dyslexic people

Limited number of playtesting sessions

Future work

Critical Mass is running a pilot of *Diermocratie* in 40 MBO classes

- Added a new NPC animal, Raven
 - Role: messenger and instigator
- Players are suggested possible discussion points

Conclusions

- *Diermocratie* makes use of interactive digital narratives to provide a space for open conversation
- Motivates students to discuss perspectives on complex scenarios
- *Diermocratie* allows exploration of self-awareness, empathy, and argumentation

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extra streng zijn
tegenover schapen

Thank you!