1. First review

The report is well written and has detailed explanation. The abstract is straight to the point, which is good, but a small introduction on the topic (on a higher level) as a primer might make it look even better. Also, adding required punctuation will make the paper more understandable. Excited to see the final results with the visualizations. Good luck!

2. Note from the course instructors

We did not consider the above review informative or helpful enough, so we asked group C30 to revise and resubmit their review of your report.

3. Second review

Abstract

- Loved the idea of temporal changes of the group which makes it look like evolution rather than using the same group of agents everytime.

- The abstract is straight to the point. A reference to your inspiration would be a good idea.

Typos (introduce->introduces)

These temporal group composition changes approximate reality more closely than previous research and **introduce** new effects and collective behaviors. -> These temporal group composition changes approximate reality more closely than previous research and **introduces** new effects and collective behaviors.

Introduction

- The problem statement, state of art and the new idea is well written and concise. There is a little bit of readability issues due to lack of punctuation, which is mentioned below.

1.1 Problem

- Problem statement is good, a reference to inspiration or why this is a problem would be a good idea.

1.2 State of the art

- What is the equilibrium state, would be nice to have an explanation about that too.

- “Depending on all these variables complete segregation tends to emerge even when the majority of agents have at least some tolerance with regards to the other group”, what is the range of tolerance and what is some tolerance? Is it quantifiable?

Punctuation and article (, & an)

In the paper the range of tolerance of individual agents with regards to the other group as well as the total amount of both groups are varied and it is shown how this can potentially result in **a** equilibrium state. -> In the paper, the range of tolerance of individual agents with regards to the other group as well as the total amount of both groups are varied and it is shown how this can potentially result in **an** equilibrium state.

Punctuation(,)

Depending on all these variables complete segregation tends to emerge even when the majority of agents have at least some tolerance with regards to the other group. -> Depending on all these variables**,** complete segregation tends to emerge even when the majority of agents have at least some tolerance with regards to the other group.

1.3 New idea

- It would be better if the rules of the model were explained in another section(briefly or detailed) and if this section was a little more brief and concise.

Punctuation(,)

Furthermore whereas there was only one preferred neighborhood for all agents in [Sch71], there will be buildings in neighborhoods which dictate the preference of where agents want to reside. -> Furthermore, whereas there was only one preferred neighborhood for all agents in [Sch71], there will be buildings in neighborhoods which dictate the preference of where agents want to reside.

Punctuation(,)

Each group of agents will have its own preferred neighborhood, however as in reality real estate is limited so agents can only move to their preferred location if there is space available and their personal preferences and tolerances allow for it. -> Each group of agents will have its own preferred neighborhood, however, as in reality, real estate is limited so agents can only move to their preferred location if there is space available and their personal preferences and tolerances allow for it.

Lastly since the paper by Schelling was published in the 1960s models were solved mathematically and thus only a limited amount of models were tested. -> Lastly, since the paper by Schelling was published in the 1960s models were solved mathematically and thus only a limited amount of models were tested.

2. Method

2.1 Simulation model

- What about the conditions of reproduction, what happens when all the elderly die and the adults turn into elders before they are able to reproduce? What happens then?

- Do two adults have to be in the neighbourhood to reproduce, is that introduced as a condition?

Some grammatical errors

Conjunction

The basic version consists of a grid where each coordinate can house one agent where each agent demands to live near similar agents. -> The basic version consists of a grid where each coordinate can house one agent **and** where each agent demands to live near similar agents.

Punctuation

This will cause a migration of agents and eventually, some final state which can be seen as the “solution”. -> This will cause a migration of agents, and eventually some final state**,** which can be seen as the solution.

Punctuation and typo

In this research a more complex approach is taken with multiple new elements introduced that will influence the **migrations** behavior of agents. -> In this research**,** a more complex approach is taken with multiple new elements introduced that will influence the **migration** behavior of agents.

Punctuation and complexity

Seeing as agents can also age within a group each agent is given a random age as well within the category which thus results in an even distribution for every age in the simulation among agents. -> Seeing as agents can also age within a group**,** each agent is given a random age within the category, which thus results in an even distribution for every age in the simulation among agents.

Article error

Buildings will be placed in the simulation and each age group will be attracted to the tiles surrounding a building, so the adults might want to live near **a** office building for example. -> Buildings will be placed in the simulation and each age group will be attracted to the tiles surrounding a building, so the adults might want to live near **an** office building for example.

Punctuation

This means that agents their preferences with regards to their neighbors as well as buildings will change over time and will likely cause them to move again once they reach a new age group. -> This means that agents, their preferences, with regards to their neighbors as well as buildings, will change over time and will likely cause them to move again once they reach a new age group.

Punctuation

Elderly agents will die after a certain number of (pre-specified) steps of the simulation and agents of the adults group will at random given the reproduction rate cause the birth of new agents belonging to the young age group. -> Elderly agents will die after a certain number of (pre-specified) steps of the simulation and agents of the adults group will at random, given the reproduction rate, cause the birth of new agents belonging to the young age group.

2.2 Implementation details

- Content is fine.

Punctuation (,) and unwanted conjunction (so)

Existing projects implementing a Schelling simulation are available online but

these would have to be adapted considerably to fit the aim of this research **so** hence it was built from the ground up. -> Existing projects implementing a Schelling simulation are available online but these would have to be adapted considerably to fit the aim of this research**,** hence it was built from the ground up.

2.3 Experiment design

- Each question was explained in the sections below, therefore this is a summary section, maybe the title of this section could be “What we hope to find” or something similar rather than experiment design.

- In terms of experiment design, was expecting an algorithm for how the agents in simulation work in a more detailed way with some numbers or probabilities.

Punctuation and typo (selecting)

Executing all possibilities is infeasible so a selecting of problems that will be investigated was made: -> Executing all possibilities is infeasible, so a selection of problems that will be investigated was made:

3. Results

- What can we infer from these graphs, a small explanation below the graphs would be nice.

3.1 Experiment findings

- Eager about the migration patterns, hope to see them in the final presentation.

3.2 Interpretation of findings

- The interpretation of the graphs with no buildings is needed.

- Is there a reference for the formula or a basis of how it was created?

- The explanation for figure 2 is pretty far off from the graphs.

Suggestion, tense and punctuation

The required relation in order for births and deaths to be in balance was formulated and provides a key building block to test the constant migration pattern. -> The relation required for births and deaths to be in balance was formulated, and this provided a key building block to test the constant migration pattern.

Conjunction (and) and punctuation (,)

Due to the fact that agents their preference change over time seeing as they get older and new agents are constantly born, agents will move constantly

over time. -> Due to the fact that agents and their preference change over time, seeing as they get older and new agents are constantly born, agents will move constantly over time.

Punctuation

So it is possible to simulate the constant migration of agents however it is much harder to reach segregation or another form of equilibrium as was the case in Schelling's paper. -> So it is possible to simulate the constant migration of agents, however it is much harder to reach segregation or another form of equilibrium as was the case in Schelling's paper

Typo (whiteout)

In the simulation whiteout buildings you can see that the pattern is less predictable, there seems to be more variance in terms of the amount of

moves per epoch. -> In the simulation without buildings you can see that

the pattern is less predictable, there seems to be more variance in terms of the amount of moves per epoch.

Verb (slow)

The period of a reduced reproduction rate was introduced to exaggerate the

effect as well as the real world idea that reproduction might slow temporarily after a spike. -> The period of a reduced reproduction rate was introduced to exaggerate the effect as well as the real world idea that reproduction might be lowered(decreased) temporarily after a spike. (or reproduction rate might be slow temporarily after a spike)

Typo (growths)

This scenario shows some interesting results: the population growths during the baby boom but this effect is negated in the period of the relatively minor decrease in the reproduction rate. -> This scenario shows some interesting results: the population grows during the baby boom but this effect is negated in the period of the relatively minor decrease in the reproduction rate.

Punctuation

The overall effect however is that the population reaches an equilibrium

that is lower than the initial situation after the babyboom and reduced reproduction. -> The overall effect, however, is that the population reaches an equilibrium that is lower than the initial situation after the babyboom and reduced reproduction.

4.2 Relevance & 4.3 Team work

Looks good!

References

The DOI link provided has a typo. Actual link "https://doi.org/https://doi.org/10.1080/0022250X.1971.9989794". Link to be given in reference.lib,

doi = {10.1080/0022250X.1971.9989794}

Good luck!