



PAL-opoly Assisted Learning

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Abstract

When students become invested into educational topics that they truly enjoy, Gamify Learning hypothesizes that as student engagement and overall enjoyment of the topic increases, the effectiveness of learning the material will also have a corresponding increase. *PAL-lopoly* is a boardgame created for college-aged students with the mission of combining entertainment and education for the sake of participation and engagement. The design of the board is simple in order to emphasize the gameplay; one that is constituted by a diverse range of math-related questions and wild cards. The research was divided into on-weeks and off-weeks as a means to compare involvement with and without the game. Research was conducted for a total of 8 weeks with 222 participants. Participants showed a statistically significant increase in participation, and an unremarkable increase in engagement. The project's result displays the effectiveness that “gamifying” can have with participation in the classroom.

Background

- **Concept of Gamifying Learning:**
 - Involves incorporating a positive feedback reward loop to motivate students.
 - Adds an element of competition to help reinforce key exam-taking skills.
- **Main Reasons for Implementation:**
 - **Increasing Grades:** Gamification helps improve students' academic performance.
 - **Improve Learning:** Enhances the overall learning experience by making it more engaging.
 - **Maximize Fun:** Gamify learning provides a fun and interactive way to learn [2].
- **Reported Improvements:**
 - **Motivation:** Students are more motivated to participate and complete tasks.
 - **Engagement:** Increases student engagement with the learning material.
 - **Achievement:** Leads to higher academic achievement and better performance.
- **Methods for Achieving Results:**
 - **Integrating Gamification into Grading:** Using game elements as part of the grading system.
 - **Innovative Assessment:** Implementing gamification as a novel way to assess student performance [3].
- **Effectiveness of Gamification:**
 - **Student Buy-In:** Relies on students' willingness to engage with the gamification process.
 - **Full Engagement:** Most effective when students fully participate and embrace the game.
- **Future Goals:**
 - **General Application:** Aim to apply gamification techniques more broadly across different learning contexts.
 - **Passive Implementation:** Explore ways to integrate gamification in a more passive and seamless manner.

Methods

Preparation

- Before the PAL session, Math Facilitators determined and categorized questions into *Regular Questions* and *Tough Questions*, based on the time it took to solve the question and the class's overall progress.
- Questions were obtained from PAL worksheets.

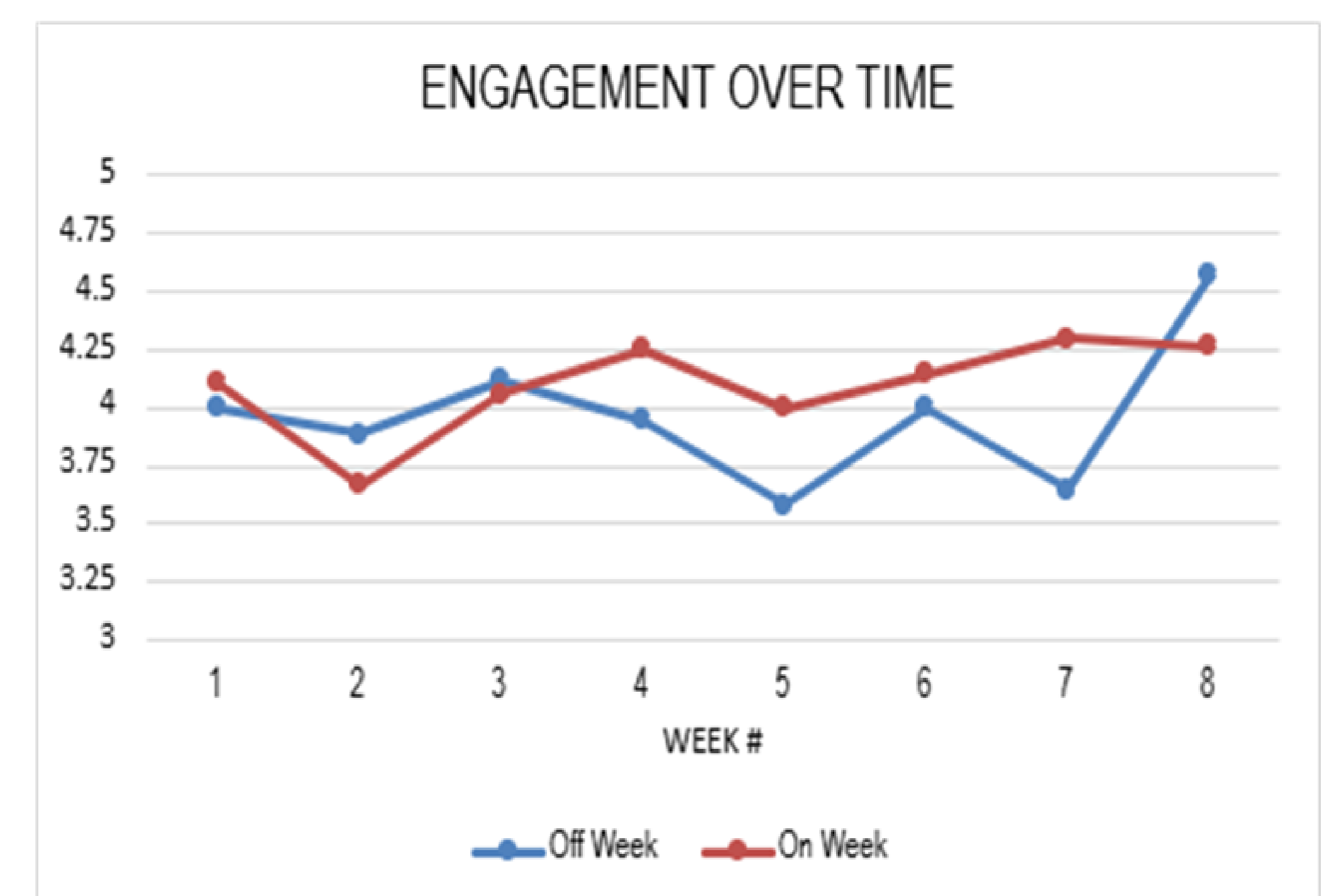
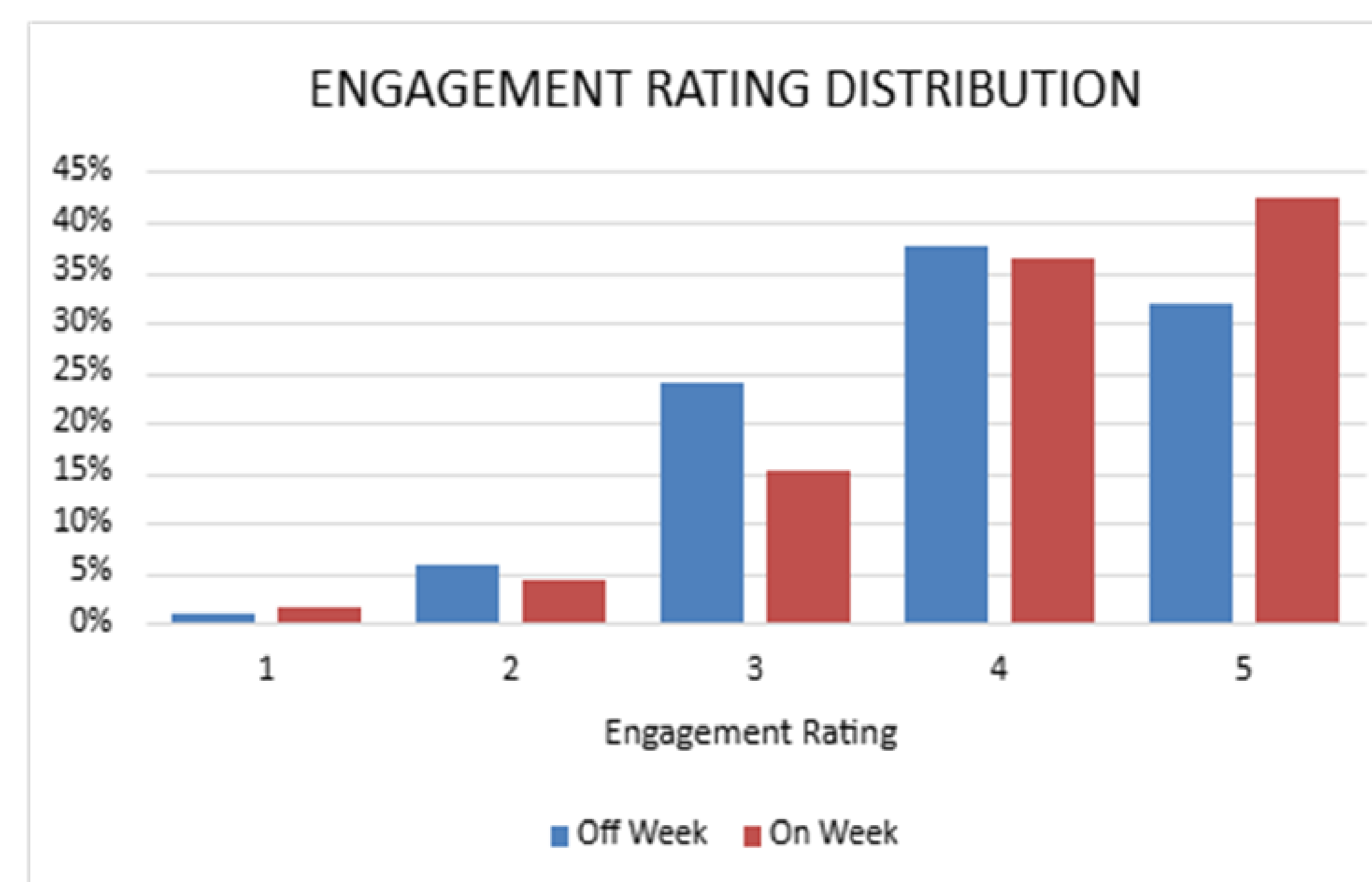
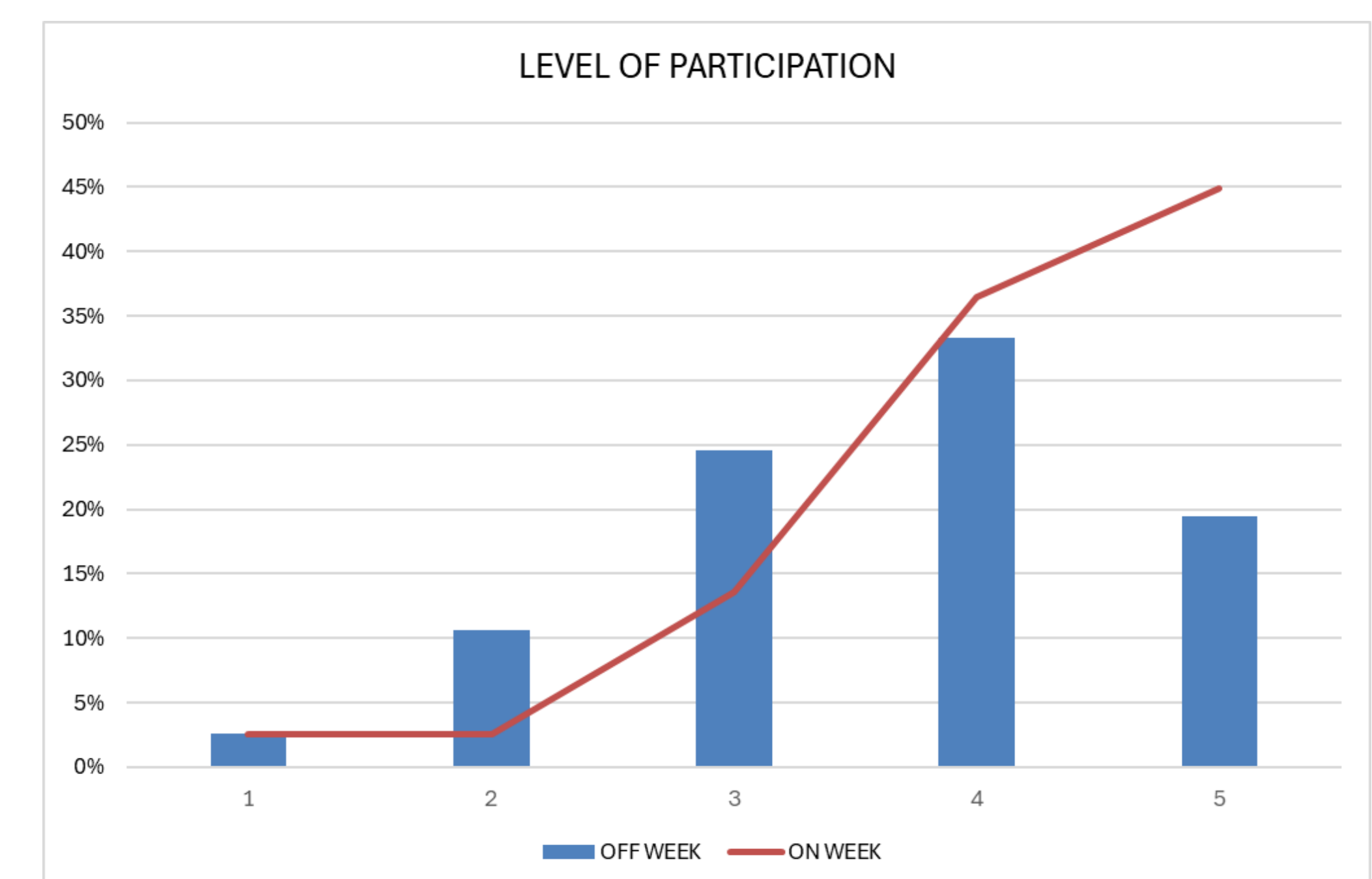
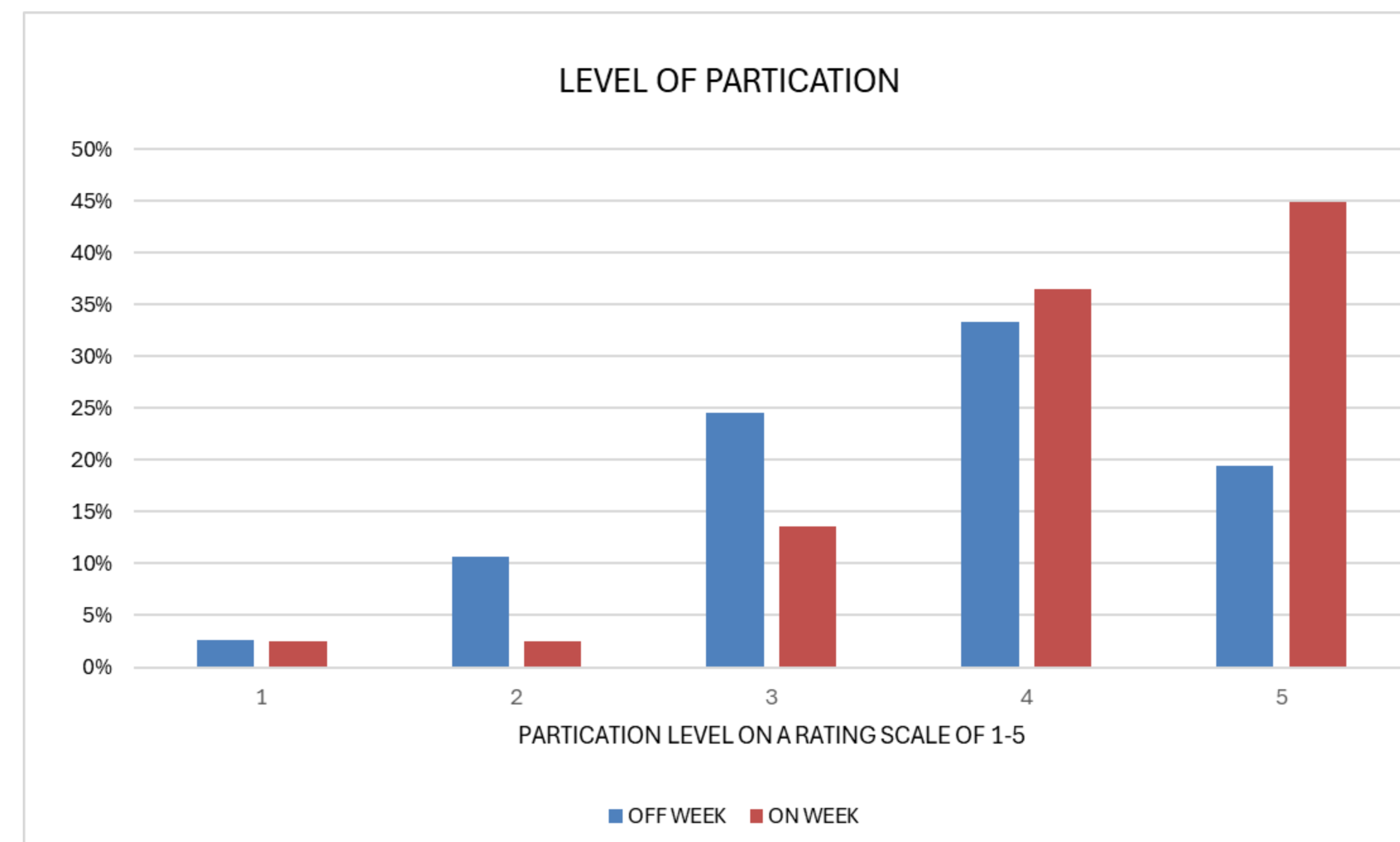
Procedure

- The game was played every other week, on weeks that the game was not played, students continued with regularly scheduled PAL sessions.
- Students split randomly into groups of 3 – 5.
- To play, students first took a question, then once the work is checked by the PAL Facilitator, they could roll one 6-sided die to move around the board.

Data Collection

- In the second PAL session of each week, students completed a survey based on how they felt about the week, the number of questions they completed, and their level of engagement.
- Surveys collected by PAL facilitators every week.

Data & Results



Conclusion

Class participation and student involvement progressively improved during our research phase for both on and off weeks with the game. Student involvement improved throughout our research even though, at first, students seemed to dislike the game. According to our data, PAL-opoly had a rough start but students gradually started to enjoy the game more as time passed. The data we collected over the 8 weeks implied that the students who were playing the game had more engagement overall as the project went on compared to the students in the off week.

Quotes

We asked our students an extra question in their survey,
"Do you have any extra comments about the game or improvements we could make?"
These were the responses:

- "Absolutely bombastic bombaclattttt"
- "Need more dlc's and let's take a day off, self care day"
- "This game is a certified hood classic"
- "I enjoy it, pretty fun"
- "Can't wait for the next game week!"
- "I give this game 5 big booms"

References

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