AN INTERACTIVE AND SCENARIO- BASED SIMULATION GAMING SYSTEM FOR BUSINESS EDUCATION USING GAME ENGINE AND MACHINE LEARNING

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ABSTRACT

Technology has become increasingly vital in society. The COVID-19 pandemic demonstrated how useful technology was in keeping society running, especially education [15]. One major trend is the use of simulations as a tool for education. Business is one of the fields that could benefit massively from the implementation of new educational simulations. For this study, a survey was conducted to gauge their prior educational experience and interest in fields such as business and computer science. Additionally, the survey participants were questioned on their previous experiences with using interactive simulations. The study had fifty-one participants both complete the survey and give consent to have their data shared in this research paper. These participants were given an additional survey to either test a business simulation or watch a video of one and respond whether they learned from it. The results indicate that although most people would want to play a game that taught more about business, only roughly 45% of individuals expressed interest in the topic of business. Furthermore, the survey responses also indicated that a large majority of individuals would also prefer more interactive educational simulations for other topics. The reception to the business simulation was mostly positive, and participants indicated that it was effective at helping them learn business. Overall, it was concluded that there is not enough access to business simulations to meet the public's interest, and either more should be created or existing ones should be made better known.

KEYWORDS

Machine Learning, Game development, business education.

1. INTRODUCTION

In a world that is becoming more reliant on technology, schools and other institutions of education are transforming technology into effective learning tools. Computer simulations have been implemented into education to stimulate class discussions and enhance student learning (Flake 55) [2]. When testing the effectiveness of computer simulations in topics such as evolution (in Biology), results indicate that the simulations have a positive effect on students' learning and understanding of the concepts (Hongsermeier et al. 130) [1]. In fields such as nursing science, simulations can provide students with a virtual environment that is similar to their expected working environment and help them gain a more vivid experience. Another upside of computer simulations is that they allow students to learn in more fun and engaging ways (Koukourikos et al. 16-17) [3].

Simulations are primarily used as a supplement to traditional teaching techniques, rather than as a complete replacement for them. In addition to new concepts, they can teach students how to analyze information and develop critical thinking skills. Teachers can benefit from using technology as well since they can develop creative and interesting in-class simulation activities. Unlike a regular lecture-style course where a teacher writes on a board while the students sit and watch, involving students directly in the learning process will make them more likely to stay motivated to learn. Computer simulations can also teach students how to work in a group, as many of these simulations involve team-based activities and decision-making (Coffman 5) [4].

The purpose of business is to maximize production efficiency in a variety of sectors. From the development of finance long ago until today, the goal is to continue increasing the efficiency and success rate of diverse businesses. Business profits off human motivation to provide goods and services. Unless human nature changes and everyone can actively provide the goods required by society, business will remain a necessary part of society. Business has already existed for a long time, about 20,000 years ago. The first known trade occurred in New Guinea in around 17,000 BCE, where one obsidian was traded for other goods. Over time, business changed from a barter economy to one which used currency, usually gold or silver, starting with the Lydian Kingdoms in the ancient world (Weatherford 31-32) [5]. By the 19th century, modern capitalism arose in the world in Europe alongside the Industrial Revolution. This economic development created prosperity throughout the world through capitalism's ability to promote innovation and new technologies (Sachs 97-98) [6]. The creation of digital technologies and computers led to the third industrial revolution, which society is currently in. This revolution has shown the power of these new technologies to transform the economy and society (Dosi and Galambos 28-30) [7]. Because of the importance of the digital economy and technology to business, expanding simulations in business education is an important goal.

This paper seeks to study the general public's interest in business and the effectiveness and prevalence of simulations and games in their education, as well as their response to testing or observing a business simulation, to determine whether simulations are effective and needed in society. The development and maintenance of businesses involve direct communication and good foresight; hence, business simulations are necessary for individuals to build upon their understanding of the business world. Through using a survey that examines the interests and experiences of individuals regarding simulations, this goal is achievable.

2. CHALLENGES

In order to build the project, a few challenges have been identified as follows.

2.1. Gap in the Research

Current research on business education indicates that not much is known about the audience of business simulations and what effect the characteristics of this demographic will have on learning—the audience of business simulations can be regarded as both students of entrepreneurship education and members of the general public who are not students of entrepreneurship education. For example, there is a lack of past research regarding the willingness and opinions of the general public to participate in a business simulation (Ewijk 9) [8]. Therefore, steps can be taken to identify the general public's perception of business and interactive simulations and broaden the field of business education research.

2.2. Factors of Simulation-Based Learning in Business Education

When learning business, students should focus on their direct communication with others as well how they can apply their business knowledge to their situation; simulations can effectively help students improve on these business skills. According to Professor Kevin Hindle, now CEO of the Mentor Entrepreneurship Group (MENTREG), three main factors are measured when judging simulations related to entrepreneurship [9]. One factor is verification, which is the confirmation of whether the simulation is functioning and portraying a scenario as intended. Verification, therefore, allows a simulation to be more reliable with less prevalent or major glitches. Verification also involves how simple the user interface is to work with and how well-trained the instructor or trainer is with the simulation. Overall, in existing studies of using simulations related to business education, the ability of a simulation to perform consistently well is a crucial factor in terms of keeping students engaged in classroom settings (Hindle 238) [10].

While simulations would engage students in the classroom, simulations are essential to exposing students to situations that would bring a realistic business environment for experience. Entrepreneurship Professor Jeffery McMullen and Dr. Dean A. Shepherd in the Mendoza College of Business detail the next factor, validation, and how it refers to the ability of the simulation to properly reflect how a given scenario would play out in real life. A simulation with strong validation would allow the users to have an accurate representation of real-life processes. However, measuring validation in a simulation can be very complicated. A scenario can occur in which results would be uncertain due to unexpected and inventive actions taken by the user. To address this issue, a simulation can choose to balance an accurate modeling of reality with the assessment of the user's skills and abilities (McMullen and Shepherd 134) [11].

Simulations have the ability to involve students in realistic scenarios that would improve their ability to assess and analyze. Dr. Joseph Fox, a professional researcher of entrepreneurship and instructional technology, weighs in the final factor of fidelity, which measures how realistic the simulation is. Unlike the other two factors, in which more of a factor means better, too much fidelity in a simulation designed for entrepreneurial education can potentially hurt the experience of its users. For instance, providing the users with too much information or details can leave the users overwhelmed and unable to focus on the simulation's main points. As a result, those who create simulations that involve business education would have to utilize a delicate balance of fidelity to maximize effectiveness. This can be done by creating believable yet simple scenarios that emphasize the most significant features of the business experience (Fox et al. 64) [12].

2.3. Benefits of Including Simulation-Based Learning in Business Education

The incorporation of simulations in a classroom poses a number of benefits for both teachers and students alike. According to Dr. Ernest Cadotte, the Emeritus Professor of Innovative Learning at the College of Tennessee, business simulations have been reported to have an overall positive effect on student learning. They have been proven to boost teacher and student enthusiasm as well as student performance measured by grades on assignments. Some other benefits of these simulations include increased flexibility and realism in learning experiences and involvement in the learning process. An explanation of why simulations are such an effective learning tool is the Experiential Learning Theory, which describes that learning is best understood to be a holistic process of creating knowledge rather than a set of outcomes. Furthermore, this theory states that learning is a result of forming transactions between an individual and the individual's environment (Cadotte 281-282) [13]. In this theory, involving the students in their education is a crucial part of developing their long-term retention of knowledge.

As teachers and students gain a positive experience from using simulations int he classroom, developers also recognize the resourcefulness of simulations. Celina Byers, instructional technology Professor at the Bloomsburg University of Pennsylvania, and Hugh M. Cannon, the Emeritus Professor of Marketing at Wayne State University, state the positive impacts that business simulations can have from the perspective of programmers. Business simulations contain clear results and feedback that indicates learning progress and can serve as a source of motivation and encouragement for the players to continue with the simulation. These business simulations work as groups of systems that provide the players with complex problems and allow them to apply both structural knowledge and strategic knowledge. Structural knowledge is defined as knowledge gained through developing hypotheses and testing these hypotheses. On the other hand, strategic knowledge is defined as selecting the appropriate approaches to solve a problem (Byers and Cannon 262-263) [14]. Due to the intricate planning regarding the creation and development of the simulations, the simulation's ability to stimulate learning can be optimized to be as effective as possible.

3. SOLUTION

This study required the development of a game to simulate driving a food truck to various areas and selling food to people to make a profit. The game was created to provide players with an interactive experience of business education, as players can learn the processes and costs behind running a food truck. Many well-known games that involve the food business tend to focus much more heavily on the food-making process rather than the business aspect. To bring more attention to this business aspect, the game intentionally limits the player's interaction by only allowing the player to select which location to drive to and which chefs to hire. While implementing the process of creating the foods in the game was considered, such an addition would likely cause the player to invest an unnecessary amount of attention and effort in an activity that is not related to the primary goal of the simulation. The game was programmed to focus on the overhead selection of employees because the hiring process is a crucial practice in business since it determines the efficiency of the business overall.

Figure 1. Food Truck Selection

This figure shows the first step of the player building their business which is establishing the main property.

The player of the game would start on a select screen, in which the player can choose what color they would like the food truck to be from three color options. Then, the player can choose from three places to visit: the city, the playground, and the amusement park. After choosing a place for the food truck to drive to, the player would then be able to select which chefs they would like to

hire from a list. Each chef has a different price to hire and a different selection of food items that they can create. The Michelin star rating of the chefs determined how much they cost and how many food items they could create. After a certain number of days is reached, the player is provided with the end screen, which displays to the player how much money has been earned. The player can then either choose to play again or quit the game.

Figure 2. Operating the Food Truck Business

This figure shows the player driving their selected food truck around the map and attempting to draw in customers.

The game was created in Unity, which makes use of scripts in the C# programming language. These scripts were implemented in almost all parts of the game, from calculating the amount of money earned in a day to displaying the food menu on the screen. The game also makes use of six scenes; one scene brings the player to the select screen in which the player can choose their food truck's color, another scene displays the end screen, a third scene displays a world map that the player can interact with by clicking, and the final three scenes animate and design the inside of a food truck for each of the three selectable colors.

```
public class OrderingFood : MonoBehaviour
{
    public GameObject foodMenuPanelPanel;
    public GameObject[] customerLocations;
    public List<GameObject> customers = new List<GameObject>();



    public void OrderFood()
    {
        Debug.Log("OrderFood");
        int size = foodMenuPanelPanel.transform.childCount;

        string[] foods = new string[size];
        for (int i = 0; i < size; i++)
            foods[i] = foodMenuPanelPanel.transform.GetChild(i).gameObject.GetComponent<F

        GameObject mapChoose = GameObject.Find("Canvas/MapChoose");
        int location = mapChoose.GetComponent<MapChoose>().intLocation;

        int numCustomers = customerLocations[location].transform.childCount;

        System.Random random = new System.Random();
        int index = random.Next(2, numCustomers);

        GameObject customer;


        for (int i = 0; i < numCustomers; i++)
        {
            if (i % index == 0)
            {
                customer = customerLocations[location].transform.GetChild(i).gameObject;
                customer.SetActive(true);
                customers.Add(customer);
            }
        }

        StartCoroutine(DisplayOrders(customers, foods));
    }

    IEnumerator DisplayOrders(List<GameObject> customers, string[] foods)
    {
        while (GetComponent<GameController>().orders.Any()==true)
```

Figure 3. Code Base for Ordering Food Feature

This figure shows the C# code for the ordering food operation, which involves the creation of objects for each order as well as loops to keep track of the customers.

4. EXPERIMENT

4.1. Experiment

A business and computer science survey was conducted using Google Forms, including both multiple-choice and free-response questions. To ensure the participants' data could be used for analysis, the first question of the survey asked for their consent to have their answers collected for a research paper; respectively, participants who responded with "No" to this question would not have their data considered. The questions in this survey asked for the participants' learning preferences, knowledge in the topics of business and computer science, and thoughts regarding interactive simulations and games to enhance learning. To provide the participants with the flexibility to express themselves, multiple-choice questions had a range of possible answers to choose from. One instance of this is in the question that asks the participants whether they prefer to learn by reading or learn by doing. Participants were provided with five possible responses to this question: "Always prefer learning by reading," "Mostly prefer learning by reading," "No preference," "Mostly prefer learning by doing," and "Always prefer learning by doing". Rather than providing a "Yes" or "No" response, offering a spectrum of answers for participants to choose from ensures that they provide more accurate and meaningful responses.

Figure 4. Learning Preference

This figure shows the question of what the participant prefers to learn and all the preferences available to answer.

A number of the questions were based on the questions beforehand. For example, one question asked the participants whether they have ever tried using an interactive simulation before. If a participant answered yes, they were then asked to list what simulations they have tried; otherwise, the participant would be asked to skip to the next question. Another question asked participants whether they have ever played a game that was beneficial to them in some way. If they answered yes, they would be asked to provide specifics in the following question. For the participants who answered that a game had not been beneficial to them before, they would simply be asked to instead move on to the next question.

Figure 5. Benefits of Playing a Learning Game

This figure shows the questions about whether the participants have or have not gained a positive experience from playing a learning game and why.

The final type of question on the survey was a free-response question about what they felt they could learn from simulations and other interactive experiences as portrayed through images. The first image featured a rocket-building simulation, in which parts of a rocket could be moved around and adjusted. A weight and mass counter was also shown at the bottom of the image. The second image portrayed a flight simulation, in which a person was able to sit in a cockpit with realistic, physical controls and operate these controls. The screens, which are cleverly placed to look like the windows of a plane, allow the person to perform flight training in a safe yet

effective environment. The final image shows a game of Scrabble, which is a multiplayer word game about creating words by placing letter tiles on a board. Although Scrabble would not necessarily be considered a simulation, it is an interactive experience that allows participants to learn vocabulary and spelling by creating words with the randomized letter tiles they are provided with.

Figure 6. Survey Simulation Example

This figure shows an example of a simulation in aircraft and asks the participant if they can learn anything from observing it. The survey took between approximately five and ten minutes to fully complete, depending on how detailed their free-response answers were. The link to the Google Forms was distributed among approximately 70 individuals within several social networks, and 54 of them completed full responses to the survey. The responses to the survey are stored in the Google Forms as well as linked Google Sheets. Importantly, the linked Google Sheets provided a way to both check the timestamps of each survey response and view all of the responses more easily.

Figure 7. Survey Results on Excel

This figure shows a list of the participants' answers for the survey; they are all organized on an excel sheet, making it resourceful to analyze.

Following the survey, participants attempted a demo gameplay of the Unity game. Each of the participants had the Unity game sent to them online as a zipped project folder, which they would try to unzip, import to Unity, and run. Participants had to directly make decisions regarding the starting budget they had with the business compared to hiring. Although their simulated food truck business would collect profits throughout the day, players had to consider the costs of both employees and facilities. After completing the simulation, the participants were asked to write and send a paragraph regarding their thorough thoughts on the simulation and whether they felt that they had learned from it.
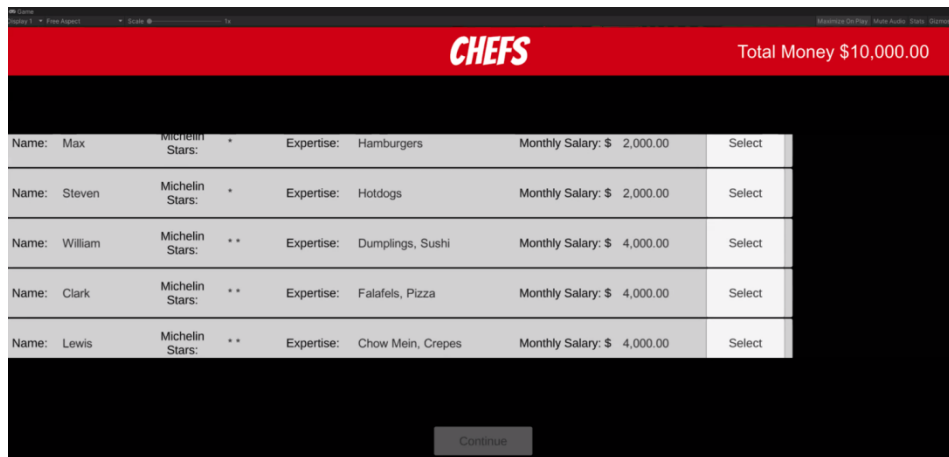

Figure 8. Hiring Chef Selection

This figure shows the game's hiring selection interface that the players will observe before selecting according to their business plan.

This survey collected fifty-four responses. As 3 of the 54 participants indicated in their responses that they did not consent to have their answers in the survey be used as data collection for a research paper, only 51 responses will be used. According to the results of the survey, only 51% of participants have previously studied computer science. As more high schools and other institutes of education push for more computer science education in recent times and it is becoming a more relevant subject, that almost half of the participants have never learned any computer science is an unexpected statistic (Yadav et al.). On the other hand, about 43.1% of participants have learned business before. As business is an integral part of society that most people are aware of, the majority of participants never learning about business before is also an unexpected statistic.
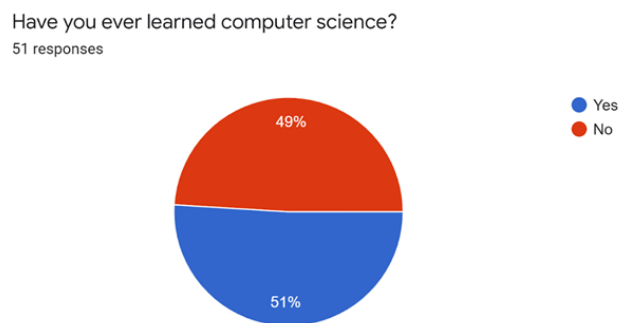

Figure 9. Participants' Computer Science Experience

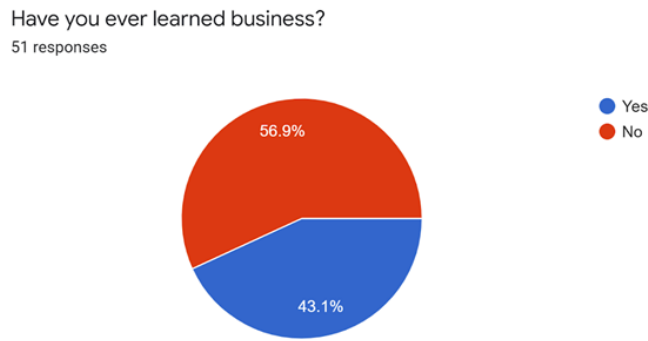Have you ever learned business?
51 responses

Figure 10. Participants' Business Experience

The data regarding the participants' prior education in computer science and business only partially matches the data regarding the participants' interest in these subjects. Among the participants, only 31.4% indicated that they found computer science interesting, while about 45.1% indicated that they found business interesting. The percentage of participants who found business interesting was relatively close to the percentage that had studied business before. In contrast, there was a significant difference between the percentage of participants who had learned business in school previously and the lower percentage of participants interested in business. This data could demonstrate the inaccessibility of business courses in high schools and other institutes of education. Alternatively, the data could also demonstrate the widespread accessibility of computer science education in the current world when compared to that of business. The interest in business is also emphasized through the responses to another question, in which 68.6% of participants indicated that they would play a game if it could help them gain a better understanding of business.
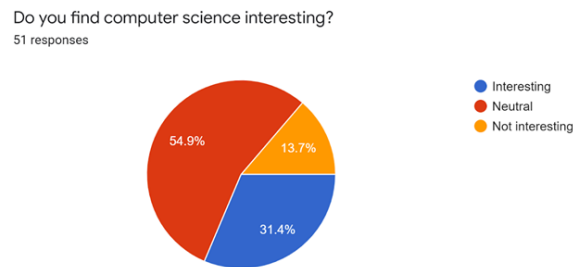
Do you find computer science interesting?
51 responses

Figure 11. Participants' Computer Science Interest
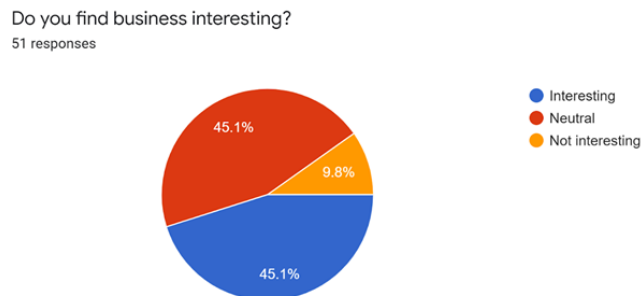
Do you find business interesting?
51 responses

Figure 12. Participant's Business Interest

If there is a game which can help you understand business more, would you play it?
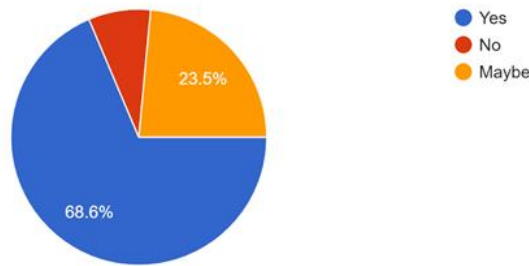51 responses

Yes
No
Maybe

23.5%

68.6%

Figure 13. Participants' Business Game Interest

According to the responses to the survey, the majority of participants seem to prefer learning by doing, with 23.5% indicating that they always prefer learning by doing and about 43.1% indicating that they mostly prefer learning by doing. In total, approximately 66.6% would rather learn by doing than learn by reading. These results represent how most individuals within the general public would be more enthusiastic to learn through a simulation, which could demonstrate a need for more simulations and interactive experiences to be incorporated into education.

Do you prefer learning by reading or learning by doing? (Ex: gaming, labs)
51 responses

Always prefer learning by reading
Mostly prefer learning by reading
No preference
Mostly prefer learning by doing
Always prefer learning by doing

23.5%

43.1%

15.7%

11.8%

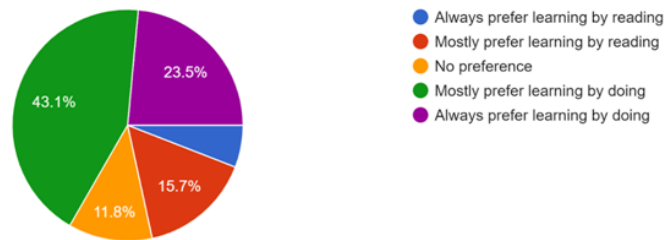Figure 14. Participants' Learning Preference

Similar to the results above, the interests of the participants also seem to contradict the participants' experiences with learning by doing. Only 45.1% of participants have reported that they have used an interactive simulation before. From these results, either the participants have engaged in learning through other means, such as participating in a lab rather than in a simulation, or they have not had easy access to simulations that could boost their learning and/or enthusiasm about certain topics. The lack of easily accessible simulations may be emphasized in another question, which asks the participants whether there should be more interactive simulations for more topics. An overwhelming majority of 92.2% responded with "Yes" to this question. Among the list of simulations that the participants have tried before, the most popular responses were flight simulations, car simulations, and virtual lab simulations. These responses are an indicator of how simulations are already being widely used in educational environments.

Have you ever tried using an interactive simulation before? (Ex: Flight simulator, car simulator)
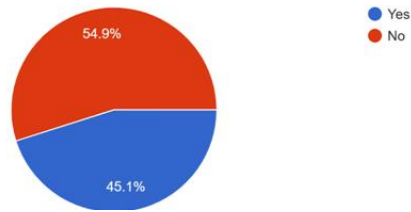51 responses

Figure 15. Participants' Interactive Simulation Experience

Do you believe that there should be more interactive simulations for other topics as well?
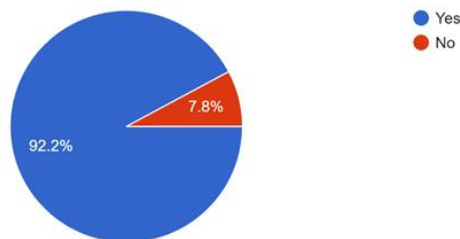51 responses

Figure 16. Participants' Interactive Simulation Opinion

When participants were asked whether they had played a game that was beneficial to them in some way, approximately 62.7% reported that they had. When asked to elaborate in the next question, many of the participants reported that the games were educational. A few responses indicated that games can improve reaction time, mood, critical thinking, and organizational skills. The genre of first-person shooter games (FPS) was most frequently associated with enhanced reaction time by the participants. Meanwhile, when bringing up enhanced critical thinking abilities, participants tended to mention strategy games more frequently. These patterns could indicate how certain genres of games can have greater benefits in certain areas.

Did you ever play a game that was beneficial for you?
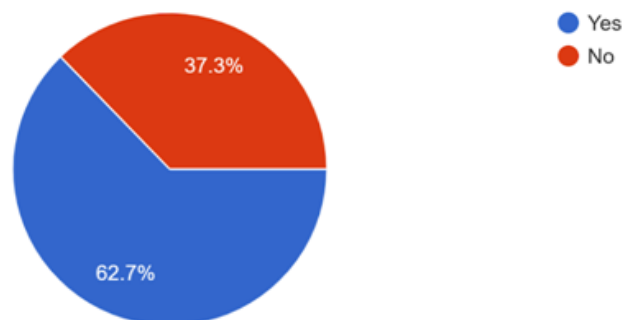51 responses

Figure 17. Participants' Experience with Beneficial Games

When asked what could be learned from the simulations and interactive experiences shown in the images, many of the participants gave only superficial responses such as they could learn just

what was specifically portrayed in the image. For example, in response to the image of a flight simulation, some participants stated that they could use such a simulation to learn how it looks and feels to fly a plane. However, other responses delved deeper, indicating in their responses that becoming a pilot requires handling complicated controls, much background knowledge, and strong multitasking ability. The majority of participants understood that what was being displayed in the picture was a word game, indicating in their responses that this game could help to expand vocabulary and test overall knowledge of English.Out of the 51 participants who had fully completed the survey and had given consent to their data being used in a research paper, only 11 of them were able to fully test the game and submit their responses. Among those who fully tested the game, every participant except one responded that they learned more about business and wished to see similar business simulations in the future. The participants noted that through the simulation, they better understood the layering relationship between profit and cost when it comes to business. Many of them also reported that they had become more mindful of how businesses operate and how complicated the inner workings of society can be.
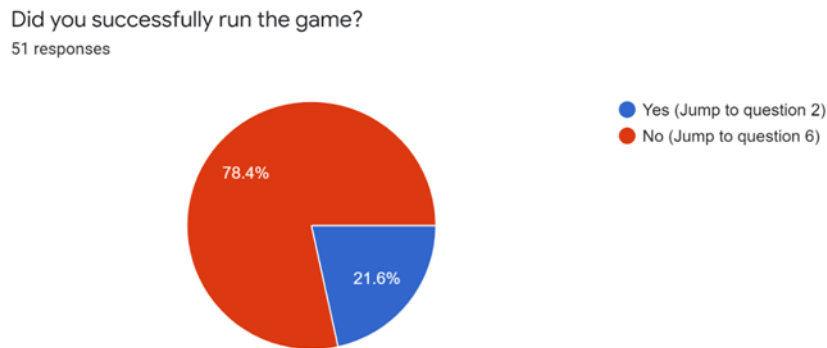
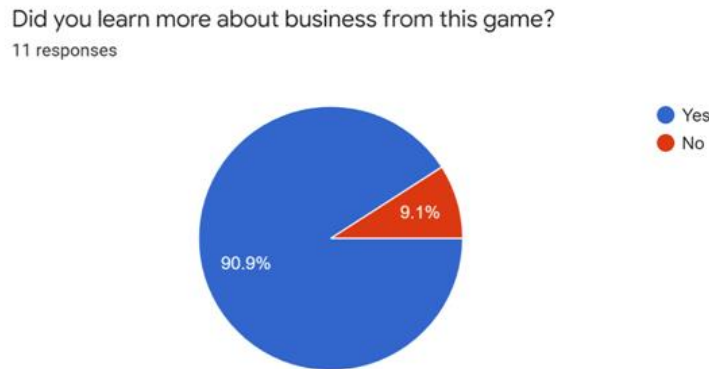Figure 18. Participants' Game Installation Experience

Figure 19. Participants' Learning Experience with the Game

Would you like to see more business simulations like this in the future?
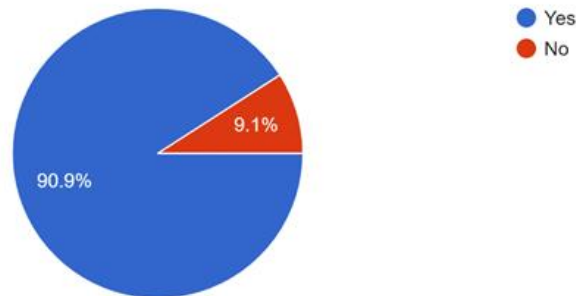11 responses

Figure 20. Participants' Interest in Future Business Simulations

Although most of the participants did not test the game, they were able to view a video of the game and provide their responses in the survey as well. Based on the video, 36 out of 40 participants who did not test the game for themselves stated that they were able to learn more about business from this simulation.

Did you learn more about business from this game?
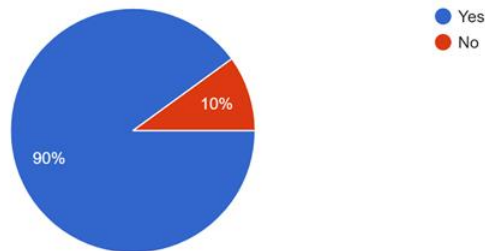40 responses

Figure 21. Participants' Learning Growth from Spectating the Gameplay

Would you like to see more business simulations like this in the future?
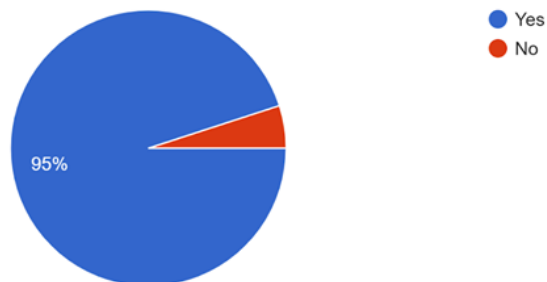40 responses

Figure 22. Participants' Interest in Future Business Simulations After Spectating

5. CONCLUSIONS

The conclusion that was drawn from this research is that not many people understand business and simulations are a significant and effective educational tool to help people learn about business. Therefore, there could be a need for more easily accessible and understandable simulations regarding education for business to be created and advertised. The participants who answered the surveys are treated as a subset of the general public. After analyzing the survey responses, the general public appears to have some level of interest in the topic of business and is generally willing to learn more about it, but either does not have access to any simulations regarding business or does not know where to access such simulations. The majority of the participants believed that the simulation was useful for learning business and wanted more to be created in the future. Furthermore, despite business playing such a significant and integral role in society, many of the participants reported not having previous education in or knowledge of business; this reinforces the need to make business simulations more prevalent and accessible to the public.

A limitation that was faced with the research was being unable to distribute the surveys to more individuals. Due to time constraints and the refusal of some individuals to either consent to have their data used in a research paper or take the surveys at all, the total sample size was 51. While a sample of 51 participants is large enough to account for variability, more participants would be preferable to reduce sample variability further. The sample size's randomness and representativeness could be improved as well, as the surveys were only distributed through some social networks. If more effort and planning had been directed towards the distribution of the surveys, the reach of the surveys could extend beyond these few social networks and gather results from those who belong to various demographics. A method to include a more diverse sample is distributing physical paper copies of the surveys. The surveys would need to be simpler and quicker to complete as a result; making this change to the surveys could also prevent non-responses, as some who take unnecessarily long and complicated surveys may give up on completing them partway through.

Another limitation of the research was the inability to reliably have the Unity game regarding business education tested and evaluated by the participants. This game was solely created to be included in this paper, and the research originally involved asking all the participants who took the survey to test the game as well. However, some of the participants lacked access to a computer with modern enough specifications to comfortably and smoothly run the game. Furthermore, the method of transferring the game to the participants to evaluate involved transferring an entire Unity project as a zipped folder. Many of the participants were unfamiliar with Unity and found it difficult to follow the process of downloading Unity, installing the correct Unity version for the game, unzipping the Unity project folder, importing the game through this project folder, and trying the game by clicking on the Select Screen scene before clicking Play. In the end, participants were only required to take the surveys instead of both taking the surveys and testing the game. Therefore, the game was not able to play as important of a role in the research as had been initially planned.

The most significant portion of the research to be added in the future is the testing and evaluation of the game by each of the previous survey participants. In the original study, an attempt was made to have participants test the game by transferring the entire Unity project as files over the internet, but some participants were unable to evaluate the game due to a lack of sufficient technology as well as an arduous and difficult-to-understand testing process. This obstacle can be overcome, however, by choosing a different method of testing. Currently, the best method would be to upload the game on a website, such as itch.io or GitHub. Asking participants to simply click a link and play a game from a website is a much more convenient and reasonable testing process

than the previously attempted method. Furthermore, using a website to play the game requires fewer resources and is less hardware-intensive than testing the game directly from Unity, which can allow even those with older, lower-spec computers to smoothly test the game. The only possible issue would be internet connectivity, but there are enough locations providing internet access to overcome this. Finally, having the game available online would allow for participants to come from a variety of locations and interact with the game at different times because they would not need to come to a single physical location to play the game.

Since further research would involve the examination of the game, the research could also be improved upon by improving the game itself. Many features that could enhance the player's experience have yet to be added to the game, including the addition of a win condition of reaching a target amount of money and a losing condition of having a negative balance. A detailed page that states the player's total balance, along with the amount of money spent and gained in a day, would be crucial for the player to understand the scenario and can influence actions to make a higher profit the next day. Currently, the game is too static and unchanging, since replays of the game have only limited variation from each other. Therefore, adding potentially positive or negative random events and having the chefs' levels depend on location could both greatly improve replayability and test the player's ability to adapt. The game could also be polished by adding more animations, updating the map with improved graphics, introducing a pause menu along with an option to quit the game anytime, and adding more areas to the map.

The effectiveness of already existing business simulations is another aspect of this that can be further investigated. While some sections of the literature review were able to address this point to some extent, this paper never emphasized the effectiveness of simulations that were specifically related to business as a main point. The paper covered the possible benefits of using a simulation to learn business interactively and the three factors in a business simulation. Covering the effectiveness of simulations can allow the observation of how much of each of these factors were utilized in certain simulations and if the benefits of using these simulations that were described in other works were significant. Including this aspect in future research would also tie in well with the evaluation of the Unity game that was meant to be included more in this paper, as the effectiveness of that game would also be tested. To test the effectiveness of the game, the sample size can be split into 2 groups. The experimental group would play the game, while the control group would receive a standard lesson on business. Both groups would take a test and the results could be compared to form a conclusion. Additionally, the surveys could be further enhanced to discuss specific features of the gameplay or the specific participant's experiences. This information would be valuable in evaluating both how effective the simulation was and how participants responded to it compared to their other survey responses. If the simulation is proven to be an effective learning tool, policies may be created in the future for business education simulations to be applied to more high schools. Real-world applications of these simulations can enhance the financial literacy education of students.

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