

BUILDING A BUSINESS SIMULATION FOR KIDS: THE MAKING OF DISNEY'S *HOT SHOT BUSINESS*

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This paper presents an overview of *Hot Shot Business*, a simulation game designed to teach basic business concepts and encourage entrepreneurship. It begins with a high-level discussion of the experience and goes on to describe how the educational content is presented to the player as the game progresses. Special emphasis is placed on the importance of play-testing in the development process.

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Additional Key Words and Phrases: entrepreneurship, education, K-12, training, youth, online games, simulation

INTRODUCTION

Disney Online's game developers teamed up with the Ewing Marion Kauffman Foundation's entrepreneurship experts to develop *Hot Shot Business (HSB)*. Disney Online designed the game play to support the Kauffman Foundation's curriculum, striving to create an experience that was engaging, fast-paced, highly replayable, and, most importantly, true to its educational source material. The game was designed specifically for "tweens," children ages 9–12.

At its core, HSB is a real-time simulation game of market responsiveness. As the experience progresses, key business concepts are described, illustrated through game play, and finally reinforced. *HSB* plays out in a series of linear phases, each with its own objective, and each building upon the knowledge acquired in the previous phase.

HSB's game phases are as follows:

- *Welcome to Opportunity City*: Introduces the concepts of entrepreneurship and opportunity recognition, and touches on how businesses can give back to the community.

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Fig. 0. An early development sketch from *Hot Shot Business*.

- *Finance Your Business*: Describes the two most basic methods of financing a new business.
- *Goal*: The player is challenged to earn \$2,000 in six virtual weeks.
- *Game Week 1*: The simulation begins, with a focus on responding to customer needs.
- *Game Week 2*: Players see how pricing decisions affect a business.
- *Game Week 3*: The importance of marketing is illustrated.
- *Game Week 4*: The difference between marking a business and marketing a product or service is shown.
- *Game Week 5*: Competition is introduced into the marketplace.
- *Game Week 6*: Game weeks 1 through 5 are brought together as the player's business matures.
- *Game Wrap-Up*: Did the player succeed in meeting the challenge? Results of the simulation are analyzed.
- *The Biz Kit*: If the players met the goal set at the beginning of the game they are given access to the *Biz Kit*, a collection of downloadable tools designed to encourage continued exploration of entrepreneurship.

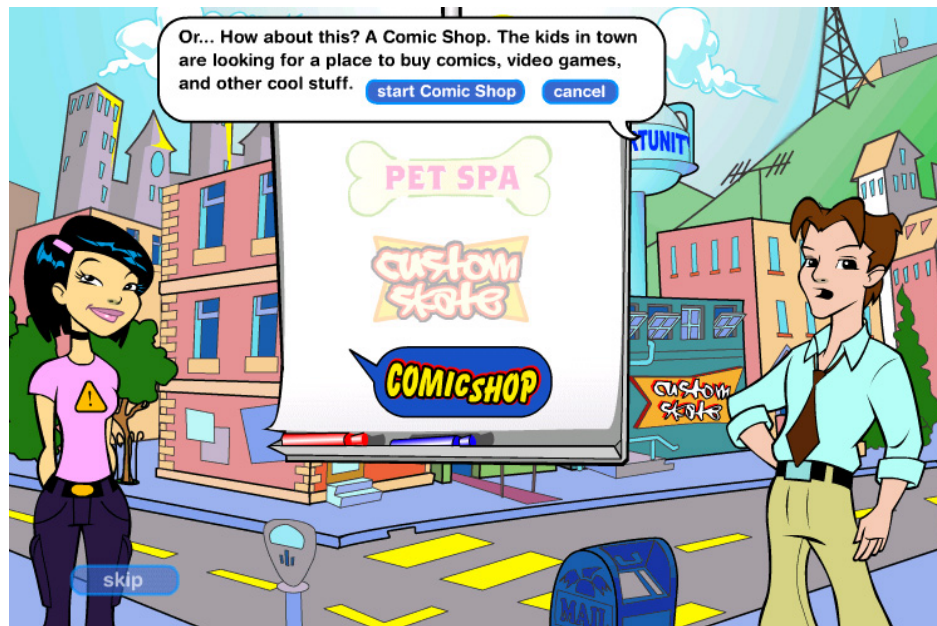


Fig. 1. Jack and Kate describe the business opportunity behind each of the simulations.

Extensive play-testing was done with *HSB* to ensure that the educational material was being clearly communicated, and the game play was engaging and intuitive. Nearly 50 kids in the target age group played *HSB* during its development, over the course of six weekly test sessions.

WELCOME TO OPPORTUNITY CITY

As the game begins, the player is introduced to Jack and Kate, the game's hosts. These characters act as guides to the world of business, and are designed to be as inspirational as they are aspirational. Jack and Kate represent the two sides of any business decision: Jack favors a conservative approach, while Kate is a free-wheeling risk taker.

Time is taken at this early point in the experience to describe the basic concepts *HSB* is built on. Entrepreneurship is clearly defined, followed by a discussion of opportunity recognition. At the end of the introduction, the player can browse through the opportunities, each of which highlights a different type of business:

- Pet Spa: service
- Custom Skate: manufacturing
- Comic Shop: retail

FINANCE YOUR BUSINESS

Once players have selected a simulation, they need to fund their new business. Players are told they have brought \$2,500 of their own money to the table, but they need an



Fig. 2. Jack and Kate offer advice when news breaks.

additional \$2,000. They can get the money either by taking out a bank loan or by partnering with an investor. The decision made here can have a rather dramatic effect on the simulation.

As with a real loan, the player makes weekly payments and pays interest. By the end of the six-week simulation, the loan has been paid back in full. This has the effect of decreasing available cash on a week-to-week basis, but it gives the player full ownership of the business with no surprises at the end of the game.

If the player chooses to find an investor, he or she has the advantage of more cash available during the game, but the investor takes a big cut at the end of the six weeks.

GOAL

After players finance their businesses, they are ready to open the doors to Opportunity City. This is where the goal of the game is set: players must make a profit of \$2,000 in six virtual weeks.

GAME WEEK 1

HSB is broken down into six one-week phases, each of which focuses on a different aspect of running the business.

In the first week, the core of the simulation is focused on; that is, market responsiveness. A news event is generated at random from the pool of events for that week. During this week the news focuses attention on the needs of customers, and on how players may want to change the way they run their businesses in light of the news.



Fig. 3. HSB's marketing program creation interface.

At the end of the week Jack and Kate review the player's performance. They show income, monies spent, and project eventual profit or loss, and finally preview what to expect in week 2.

GAME WEEK 2

The effect of price changes on the player's business is the focus of this phase of the game. The following is a sample event from the week 2 news pool:

Fierce Drought Enters 6th Week.

Kate:
The city's raising prices on water; its going to cost you more for each bath. Better raise prices on the Wash-n-Whirl.

Jack:
I agree with Kate on this one! Who knows when the dry spell will end.

GAME WEEK 3

At this point in the game, the number of customers entering the business will start to dwindle unless the player starts a new marketing program. The importance of marketing the business is discussed, and the player is encouraged to start a marketing program.

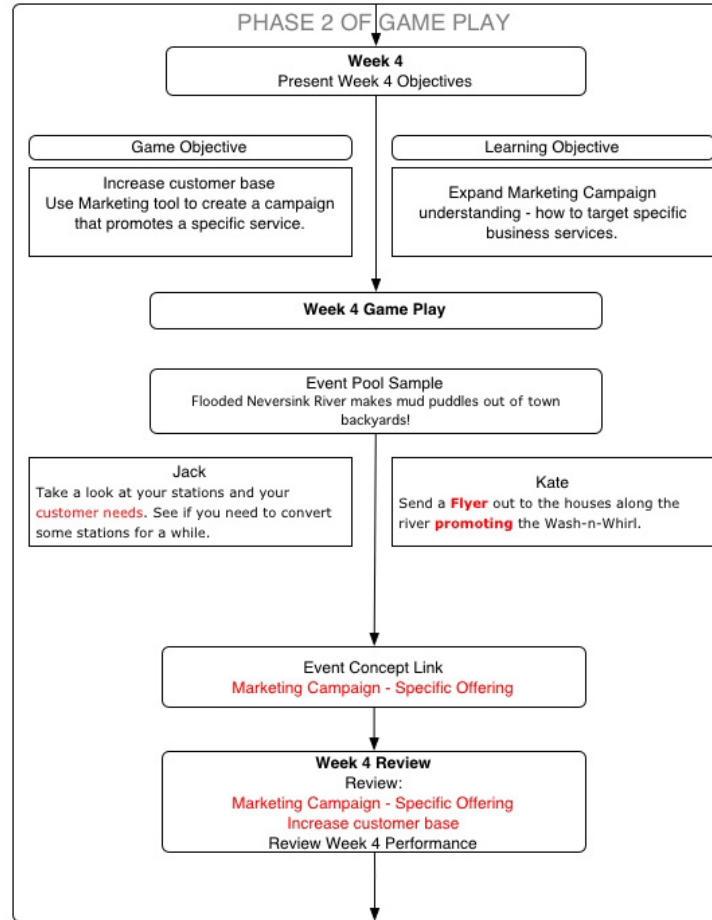


Fig. 4. Game week 4 design paper flow.

Each simulation has four different marketing options, each with the ability to promote the business as a whole, or a specific product, or service the enterprise offers. Price breaks are offered for marketing programs that the player chooses to run for a longer length of time.

Marketing the business is essential to winning the simulation. The basic message is that it's tough to make a profit if no one knows your business exists.

GAME WEEK 4

Emphasis this week is placed on marketing individual products and services to fill specific needs in the marketplace. An excerpt from the *HSB* design documentation is shown here, illustrating how this section of the game was originally mapped out.

GAME WEEK 5

The difficulty of the game is ratcheted up a few notches as the simulation nears its end. A competing business opens, forcing players to market their business heavily and watch their prices. The following is a sample event from the week 5 news pool:

Ultra Board Systems Opens Shop on the East Side of Opportunity City.

Kate:
No problem! I'd invest some cash in a **brand marketing** campaign to counter the competition.

Jack:
She's right. No need to panic, just watch your prices and **market** your boards.

GAME WEEK 6

Learning from the previous five weeks of gameplay must be applied as the game concludes. The pacing and difficulty of this final week is the toughest as players work to jump over the \$2,000 profit line.

GAME WRAP-UP

If players succeeded in making a \$2,000 profit, they are given access at this point to the *Biz Kit* reward interface. If they failed to make enough money, they are encouraged to start the simulation over.

Note that during play-testing nearly all players failed to win on their first try. Almost universally they tried again and won on their second or third attempt. Most users tried at least two of the three simulations.

BIZ KIT

As noted earlier, the *Biz Kit* is a collection of downloadable tools designed to encourage continued exploration of entrepreneurship.

The *Biz Planning Kit* is a guide to developing a business-plan document (intended for older players); *Biz Ideas* is a list of business ideas and opportunities in the vein of the traditional lemonade stand (intended for younger players); and the *Biz 101 Dictionary* is an in-depth look at the vocabulary of the business world (once again intended for older players).

Finally, a business card and flyer maker can be downloaded to any PC or Macintosh from the *Biz Kit*, allowing players to customize and print their own marketing materials for their own budding enterprises.

PLAY-TESTING AND DEVELOPMENT NOTES

Early in *HSB*'s development, the decision was made to bypass realistic products and services (referred to as "stations" in-game), and instead to try for fun and fanciful designs.

This proved extremely successful in play-testing, and resulted in longer than anticipated game sessions. In fact, players' desire to tweak stations and watch them run forced us to adjust both the game clock and underlying financial models several times, ensuring that there was a proper balance among fun, fairness, and business realities in the simulation.

The presentation of textual copy and dialog, especially in the introductory sequence, was a major concern. Basic information had to be presented before the simulation started



Fig. 5. “Stations” from *HSB*’s custom skate simulation: off-road boards, space boards, virtual boards, training boards, girl power boards, nitro boards, ski boards, and prate boards.

to create a proper context for game play and ensure that there was a firm educational foundation for the rest of the experience. Doing this in a bandwidth-friendly way and one that kept the player interested and attentive took a great deal of time and numerous revisions. Once again, extensive play-testing was critical, and, not surprisingly, brevity and pacing were critical factors.

Each of the three simulations – Pet Spa, Custom Skate, and Comic Shop -- went through at least two weeks of play-testing. This exercise proved one of our basic design assumptions wrong: the assumption that the interface for each of the three simulations had to be identical to minimize confusion for the players. In fact, players became confused when all three simulations worked the same way. Players responded well to a standard interface convention with slight customization for the needs of each simulation. For example, in the Pet Spa, the player clicks on a pet waiting on a bench for placement at an available station. The pet disappears from the bench and re-appears at an available station that matches its needs. When the service is complete, the pet disappears from the Pet Spa and the station is free again. In Custom Skate however, the player clicks on a colored shipping crate to start production. The crate remains in place and slowly fills up with skateboards as the manufacturing station works away. When the crate is full, it closes itself and is removed by a forklift.

CONCLUSION

Hot Shot Business’ key messages on the importance of marketing, the value of the customer, and recognizing opportunities appeared to be well understood by the players at the end of *HSB*’s six weeks of play-testing. It is impossible to over-emphasize the value

of spending time with the game's intended audience and viewing their interactions with the work in progress with an open mind.

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