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GAT 210A—Spring 2014

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Game Analysis

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Elephant (version 1)

**Playtesters**

Classmates from the GAT210 Section A participated as first-time players for the rules that are written in the Concept & Design document. There were only two students who playtested my game once for this lab.

**Name: Email:**

* Ian Aemmer i.aemmer@digipen.edu
* Garrett Huxtable [g.huxtable@digipen.edu](mailto:g.huxtable@digipen.edu)

**Playtesting Results**

Ian Aemmer and Garrett Huxtable were both my playtesters for my game, “Elephant”. I had neglected to bring proper printed rules to the lab, so I had to explain a lot from the written rules I did bring to class, including setting up the board. Explaining the rules went over well, except for my rules for determining the direction of movement for the elephant. I did not have the elephant movement diagram nicely printed out and explaining the elephant movement through words alone made it difficult to understand. This was confusing to both players, until I drew a diagram for elephant movement. In future versions of the game the elephant movement diagram should be placed somewhere on the board at a size large enough for both players to see. Garrett chose to play as bronze, leaving Ian to play as silver for the duration of the playtest.

About two minutes later the players were both ready to start playing the game. During the first two turn sequences both players forgot about moving the elephant. However, on the third turn both players realized that the elephant had not moved yet and they remembered to move the elephant from there on out. Once the players got into the rhythm of alternating turns then moving the elephant, the game progressed well. This is important because it means that both the players understood how to play the game.

Although not my intention, the game appeared to have three distinct parts, a sort of beginning, mid, and end phase to the game. In the beginning, both players did not take much time to make a decision on which piece to move, resulting in a rapid pace for the game. This is most likely because during this part of the game both players are separated by many spaces, with little threat in making any kind of move. The beginning phase took five to six minutes, much longer than it should have. This is likely the fault of the game board, because there are 5 pieces for both players to move and the board is quite large, resulting in a long time before both players meet in the middle. The beginning phase of the game might be improved by adjusting the game board so that both players can meet in the middle much sooner.

The mid phase of the game seemed played different than the beginning phase of the game. Both players’ pieces met at the middle of the board making the decision on which piece to move difficult. There is a two minute time period where both players line up and wait to see who will make the first move. Up until this point the elephant has danced around bronze pieces throughout the whole game, and has yet to cause any casualties. However, eight minutes into the game the elephant trampled a silver piece, starting a capture contest between both players in the middle of the board. Both players seemed intensely engaged, with laughter and stare-down moments throughout this part of the game.

The final phase of the game dealt with Ian making a break with his king towards the opposite side and Garrett trying to chase him down with a pawn. There were more sliver pieces and one bronze piece trampled by the elephant in this phase of the game, as well. Ian ended up making it through to the end, winning the game at nearly the ten minutes into playing the game. Unlike the mid phase, the ending phase of the game involved a quick turn sequence between both players as less pawns and a clear course of action for both players existed at this point.

Talking to both Garrett and Ian about the game revealed some interesting insights into how they felt the game played. Considering that the elephant remained close to the Garrett the whole game he felt it greatly affected the way he moved his pieces. Both players agreed that the board is a little too long, because it took them quite awhile to reach the middle of the board. Overall, they said the game was enjoyable, but they both wanted to be able to control the elephant.

Kings Crossing (version 2)

**Playtesters**

Classmates from the GAT210 Section A participated as first-time players for the rules that are written in the Concept & Design document. Due to the limited number of students available in class this day our class TA, Alexandra Schecterson, participated as a playtester, as well.

**Name: Email:**

* Christopher Christensen c.christensen@digipen.edu
* Alexandra Schecterson [a.schecterson@digipen.edu](mailto:g.huxtable@digipen.edu)

**Playtesting Results**

For this week’s lab I decided to update last week’s game based upon the playtester feedback from last week’s lab. The previous version of this game was simply called “Elephant”, due to the independent elephant piece that acted as a source of chaos and randomness. While both Garrett and Ian expressed that they enjoyed the game they had suggestions to make it better. Both of them wanted to have their own elephant piece to wreck havoc on each other. They also both thought the game board was too big. The latest version of this game has been rewritten to test if the smaller board and elephants for both players increase the enjoyment of the game in ways that the previous game did not.

Christopher and Alexandra were first time playtesters for “Kings Crossing” in this week’s lab. The playtest proceeded with both players given the set of rules and a pen so that they can edit the rules as they see fit. I have never done this in pervious labs, and while this increased the time spent reading the rules to a total of twelve minutes, it proved beneficial in helping me understand how to better write rules for the future. Specific to “Kings Crossing” areas of confusion arose in the rules for the elephant. Christopher felt the wording used was too complex and Alexandra suggested that a table would help organize this information better.

After reading the rules Christopher and Alexandra spent a few minutes thinking out loud about the elephant. They both felt that the possible lack of control for their elephants was distressing and did not like this idea at all. Both of them felt that the lack of full control for the elephant would lead to disaster and ultimately not enjoy the game. Both players also felt that only being able to control the elephant for moves of one to two spaces also did not seem to make it different than pawns. Despite their worries, they participated in the playtest with Christopher as the East player and Alexandra as the West player.

Interestingly, Christopher and Alexandra set up the game board horizontally instead of playing on the opposite sides of the board. This is likely because of the words “East” and “West” printed on the board and also because of the diagram used in the rules. While this was not at all an intention of mine, both of them explained that this layout seemed different and interesting. The playtest was played in this orientation for the entire game and did not seem to cause any problems in their ability to play the game.

Three minutes into playing the game, Christopher and Alexandra brought up a critical area of confusion in how the turn sequence goes for both players. Both of them want to be able to move their elephants first instead of their pawns/king. Their concern is that making a move with these pieces before moving their elephant could lead to disaster if the elephant is out of control. This is a good point, and for the remainder of the game they played the game by moving their elephant first before their other pieces. This is a better way to play the game, because a better informed movement decision can be made after the random movement of the elephant.

Ten minutes into the game both players appear to be enjoying the game by using their elephants to trample each other. Because he had trampled his own piece at the start of the game, Christopher was upset about the randomness of the elephant. However it worked to his advantage when he was able to charge forward four spaces and trample two of Alexandra’s pawns. This lucky turn of events made him excited and opened him up to the positive possibilities the randomness of the elephant can have. Alexandra managed to use her elephant the most efficiently by using it to trample Christopher’s king and win the game after eighteen minutes of play.

Both Christopher and Alexandra were great playtesters and brought up a myriad of shortcomings with the current state of the game. While my initial goal was to test to see if the smaller board would start the action of the game sooner, it turns out the board may not be the problem. The one space at a time movement makes the beginning of the game too slow, despite the smaller board size. Changing the way other pieces move would greatly help the game and perhaps lessen the power of the elephant. Both Christopher and Alexandra were right in their worry for how powerful and broken the elephant is in the game. Tweaking the dice probabilities for control of the elephant is needed. Also, Alexandra pointed out that perhaps the Kings should be able to capture the elephants, a great idea that I will have to test.

Kings Crossing (version 3)

Classmates from the GAT210 Section A participated as first-time players for the rules that are written in the in the Concept & Design document. One complete game was played during this playtest.

**Name: Email:**

* Jonathan Blunden j.blunden@aol.com
* Joseph Borber [j.borber@digipen.edu](mailto:g.huxtable@digipen.edu)

**Playtesting Results**

For this week’s lab I decided to continue developing my game “Kings Crossing” using rules that I have since modified from the previous playtest. In the new version of “Kings Crossing” I have modified the board to be a bit more intuitive for the initial setup of the game’s pieces and also smaller so that the pieces meet at the middle sooner. Further changes include a lowered probability of the elephant moving chaotically and special movement and capturing rules for the pawns and kings. I am going into this lab looking to see if the new board is aesthetically pleasing, functional, and shortens the time it takes for the main action of the game to take place. I am also looking to see if the pawns no longer feel slow and unimportant and that the elephant does not feel as overpowered as in the previous version of this game.

I felt it was important that my playtesters for this new version of “Kings Crossing” had never played any iteration of this game before, so for this playtest Jonathan and Joseph were the playtesters for this lab. The playtest began with both Jonathan and Joseph reading over the rules and marking up areas of the rules that were unclear to them. It took a total of eight minutes for them to go over the rules. Jonathan made a great suggestion that my movement diagrams shade the legal and illegal spaces for movement, as well as make sure to list my dice as components of the game. Joseph also pointed out that capturing the castle was unclear since what I really mean is move unto the other castle. All of their suggestions were great and will help clarify my rules for new players in the next iteration of this game.

Play began with Jonathan electing to play as the West and Joseph playing as the East. Jonathan managed to correctly setup the game with all the pieces in the right locations, and Joseph pointed out that while the diagram showed where the elephant should start at, it would perhaps be better to have it displayed on the board, too. This is a great point and can only further ensure that the game starts out correctly. A few minutes in there were questions regarding if they had to move every piece or could elect not to move pieces if they did not want to. This is an option that I had not considered, and further playtesting on this would be interesting. For the remainder of the game both of them played as if they had to move every piece in a turn.

Despite having more pieces to move in a turn, the average turn for either player is quick at roughly thirty seconds to a minute in length. Jonathan managed to use pawn jumping to breach the middle of the board with his pieces about four minutes into the game. This is much quicker than in the previous version of the game, which is the result of board topology changes and movement changes for the pawns. However, this movement may be way too powerful, as it allowed him to cover five spaces on the board in one turn between two pawns. While quicker movement was an initial goal for this version of the game, the movement of every piece means that pawn jumping can be exploited to gain a lot of territory in the game. This was not my intention and may have to be removed altogether if players abuse it in a way that it makes the game not fun to play.

Lowering the probability of the elephants losing control also seemed to be a success. While Joseph did get unlucky a few times, neither player complained not being able to use the elephant to their advantage. Joseph even felt brave enough to use the elephant to shield his king, despite the risk of that the elephant can trample his own king. The game ended with Jonathan winning after playing the game for twelve minutes. However, the invulnerable state of the elephant is still an area of debate for players, which was the biggest discussion after the game was over. This brings back the question of whether or not players feel the need to have their own elephant or go back to having the elephant be an independent player in the game.

There were a few successes for this version of the game, especially in that the game did not feel as slow to start and the players did not complain about the pawns being useless. However, the problem with the elephant still exists. At the end of the game the playtesters and I discussed using pawns as a way to capture and control one elephant that is used throughout the game. In the next version of the game I’ll explore players fighting over who will have current control of the elephant. Also, after playtesting Joseph’s game I decided that I need to focus more on the castle capture theme.

Castle Capture (version 4)

Classmates from other GAT210 lab sections participated as first-time players for the rules that are written in the Concept & Design document. One complete game was played during this playtest.

**Name: Email:**

* Auston Lindsay auston.l@digipen.edu
* Madelyn Santino [madelyn.santino@digipen.edu](mailto:g.huxtable@digipen.edu)

**Playtesting Results**

For this playtest I went outside of the classmates from the GAT210 Section A and got other GAT210 players to playtest my game. I decided for this playtest to be a blind playtest and to not explain or help the players as they attempted to play a complete game. For this playtest, my playtesters are Auston Lindsay and Madelyn Santino.

The first 5 minutes involved both playtesters reading the rules and trying to find mistakes in the way things were worded. Right away Auston found a few sentences with either a misspelling or a funny way or wording things. This is especially helpful in making sure that my rules are bullet proof and have no silly errors in them. Madelyn quickly breezed through the rules and set up the board for them to begin. Madelyn decided to play as the West, leaving Auston to play as the East.

While there were a few hiccups in making sure the turn sequence was played correctly, for the most part the game went very well. Only at the beginning did both players forget to move all their pieces, but then again, the rules say that both players can elect not to move all their pieces, so perhaps this was intentional. Both Auston and Madelyn understood how the elephant was supposed to move and also how to capture the elephant. This was delightful to see, as the elephant’s movement has always been a bit of a struggle for players to understand. I believe their understanding to be the result of multiple playtester feedback that helped me create the diagrams featured in the rules.

The game progressed to the middle of the board quickly, but Auston was able to capture Madelyn’s king. In previous versions of the game this action would end the game, but in the newest version of the rules Madelyn has a chance to take down Auston before he can capture her castle. Within one space of capture, Madelyn uses a pawn to control the elephant and take down Auston, resulting in a draw game. This is the first playtest where a player almost captured the other castle, and appeared to be quite fun for both of the players. I can say with some confidence that they both appeared to be engaged in the game and not confused on how to move in the game.

Unfortunately, this version is not without its problems. I see now that giving the players the option to not move pieces is potentially a problem. Madelyn even pointed out in her feedback that the game would have been over sooner if she had been forced to move. Also, the race to the absolute opposite side is very difficult due to the lack of spaces near the end. It kind of becomes a dead zone of wasted time moving all that way. However, Madelyn enjoyed the game while Auston did not really seem to love or hate it.

Castle Capture (final version)

**The “Why”**

The final version of “Castle Capture” is mostly the same as the previous version but with more board changes and a few corrections to the rules. The biggest change is that the king no longer starts out all the way in the back, because the castle has been moved forward 2 spaces. I am hoping that this will result in a quicker game. This is because the king is now further out into the board, as well as the castle. With fewer spaces to traverse, it should now be more possible than ever for a king to capture the castle. This also lessens the dead turns of moving those last few spaces before the end of the board where no more pieces are probably located.

The next big change is taking away the player’s option to not move a piece. While giving the player an option to stand their ground seemed like a good idea, it often did not work well for the middle part of the game. Because of the adjacent space capture mechanic, players would often line their pawns up near the middle until someone was finally brave, or foolish enough, to cross the middle. I believe the option of not being able to move a piece stalls the game, causing it to take longer to get to the inevitable clash of pawns.

The journey that this game has taken has certainly been an interesting one. I went into the making of this strategy game mostly on a whim that it would be interesting to have an “agent of chaos” piece that breaks the traditional symmetrical strategy game layout. My worries that it would not be enough to make the game feel different were completely wrong. The elephant has done everything from break the game entirely to breaking the game entirely in a fun way. I’ve tried making the elephant a completely independent piece, a semi controllable piece of a player’s army, and finally settled on a semi-controllable independent piece. My hope is that this “agent of chaos” idea works in a way that it makes every game random, exciting, and fun, regardless if it helps you or destroys you in the process.

**Mathematical Analysis**

The final version of “Castle Capture” features the elephant as a randomizer in the game that uses a d4 and a d6 to establish the amount it moves and the direction it moves in. A “Free Movement” elephant is not controlled by the player and has an equal 25% chance to move 1, 2, 3, or 4 spaces due to the d4. The d6 has a roughly 16.7% chance to move in any one direction based on the number of sides that a hexagonal space has. This affects the players in an equally random way, as anywhere the elephant moves it can trample any player pieces.

If a player has control of the elephant, the math changes in a way that is more favorable for this player. The player can use the advanced movement of the elephant to take several opponent pieces if the right opportunity arrives. Essentially, the d4 is rolled to determine both the amount of movement and also whether or not the player has control of the elephant. The player has a 75% chance to control the elephant by rolling a 1, 2, or 3 with the d4. This results in not having to roll for the direction of the elephant and gives the player complete control over which direction they want the elephant to go. However, keeping with the “agent of chaos”, on the 25% chance that the d4 roll is a 4, the elephant must move in the direction provided by a d6 roll. This keeps the elephant as risky, but still gives the player a chance at a positive outcome.

On a perfect path, a player is able to capture their opponent’s castle within 8 turns; this is because the castles are 9 spaces apart from each other. This should ensure in a game that is quick to get into action, unlike the previous versions of this game which had the castles at the complete opposite positions of the board, 17 spaces away. With an average turn length of 45 seconds, this means the game can potentially be over in 11 minutes in 15 seconds.