

A woman with short dark hair, wearing a light-colored t-shirt, is leaning over a desk in a studio or office environment. She is looking intently at a computer monitor which displays a video editing interface. Her hands are on a keyboard. In the background, other people and studio equipment are visible but out of focus.

Choose Your Own Adventure: Writing Text Games With ChoiceScript

Presented by Ben Serviss

General Note

- This talk is geared toward **all levels** of technical ability, programming experience and game development experience
- Working on a ChoiceScript game and have questions? Find me at Tech Office Hours!

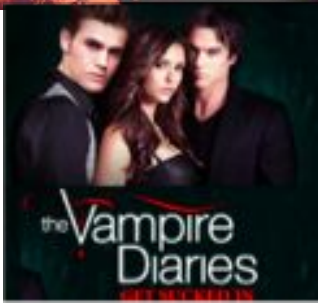
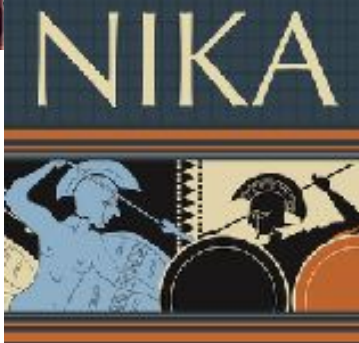
Agenda

1. Getting Started with ChoiceScript
2. Additional ChoiceScript Tools & Resources
3. Game Design Tips
4. Publishing Your Game & Making Money with Choice of Games

But First...

Who am I and why should you listen to me?

- Game developer since 2004
- Worked on 24 games for 17 companies



But First...

- Full-time, contractor, indie
- Hiring, lecturer, part-time
- Producer, game designer, writer
- Console, PC, Facebook, original & licensed IP, educational, text games, military training simulations

But First...

- *How to Score Your First Game Job*
- How-to for breaking into the industry
 - Includes specific recommendations per discipline, including writing
 - Paperback & Kindle on Amazon and scoreyourfirstgamejob.com
- Game job postings & career advice at [@getagamejob](https://twitter.com/getagamejob)



Getting Started with ChoiceScript

- What is ChoiceScript?
 - Free & Open-Source scripting language published by Choice of Games
 - Designed to easily create multiple-choice, text-based games
 - Designed for non-technical users
- What is Choice of Games?
 - Game Publisher and Developer
 - Founded 2010
 - Purpose: *“Produce high-quality, text-based, multiple-choice games”*



Getting Started with ChoiceScript

- What does a ChoiceScript game look like?
 - Let's find out: choiceofgames.com
- How do I get ChoiceScript?
 - Download link on this page:
choiceofgames.com/make-your-own-games/choicescript-intro

Additional ChoiceScript Tools & Resources

- Test your game with Quicktest/Randomtest
- Two testing programs built into ChoiceScript
- Access by going to:
 - {server_name}/quicktest.html
 - {server_name}/randomtest.html

Additional ChoiceScript Tools & Resources

- Additional ChoiceScript functions
 - Set variables to true or false (aka Boolean values)
- Setting variables to true or false:
 - `*set finished false`
 - `*set correct guess = "blue"`

Additional ChoiceScript Tools & Resources

- Additional ChoiceScript functions
 - Test multiple conditions
- And/or/not (with mandatory parentheses)
 - And: `(leadership > 30) and (strength > 40)`
 - Or: `(leadership > 60) or (strength > 70)`
 - Not: `not(strength > 70)`
 - Complex parentheses: `((leadership > 60) and (agility > 20)) or (strength > 80)`

Additional ChoiceScript Tools & Resources

- Additional ChoiceScript functions
 - Add conditions to displaying certain choices and gray out unselectable options with the `*selectable_if` function
 - Nudge players that there are alternative paths to take

```
*set phone_battery_left false
```

```
How do you find your way home?
```

```
*choice
```

```
  #I use the paper map.
```

```
    It takes a while, but you get your way home.
```

```
  *finish
```

```
  #I ask for help.
```

```
    You ask someone for directions and they point you the wrong way!
```

```
  *finish
```

```
*selectable_if (phone_battery_left) #I use my phone's GPS.
```

```
  Your phone guides you home.
```

```
  *finish
```

How do you find your way home?

I use the paper map.

I ask for help.

I use my phone's GPS.

Next

Additional ChoiceScript Tools & Resources

- Additional ChoiceScript functions
 - Hide previously-selected choices when allowing many options in a choice with the `*hide_reuse` function

```
*label start
*choice
  *hide_reuse #One.
    The loneliest number that you'll ever do.
    *goto start
  *disable_reuse #Two.
    Two can be as bad as one.
    *goto start
  #I can't decide!
    Well, think it over.
    *goto start
  #Done.
    OK!
*finish
```



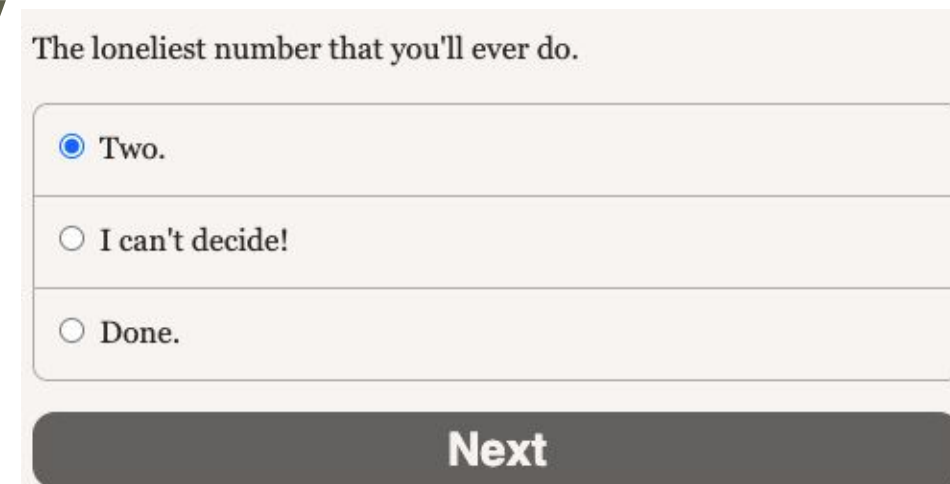
One.

Two.

I can't decide!

Done.

Next



The loneliest number that you'll ever do.

Two.

I can't decide!

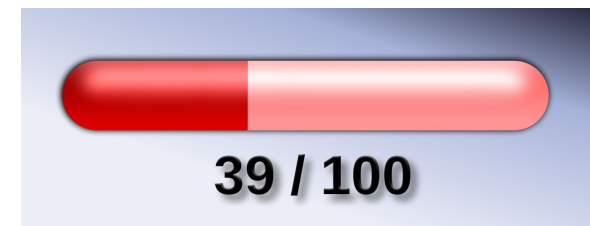
Done.

Next

Additional ChoiceScript Tools & Resources

- Additional ChoiceScript functions
 - Use fairmath modifiers for stats measured from 1-100% to keep stat values in that range

```
*set leadership %+20  
*set strength %-10
```



Additional ChoiceScript Tools & Resources

Percentile Stats and Fairmath

Stats that display on the stat screen usually range from 0 to 100. It can be difficult to guarantee that the player can never accidentally gains more than 100 points of leadership. To help with this, we've provided special commands that will keep stats in between 0 and 100.

```
*set leadership %+20  
*set strength %-10
```

The “%+” and “%-” operators are called the “fairmath” operators. The idea is that as your leadership score gets higher, it becomes harder to increase, and easier to decrease. According to fairmath:

- Fair Addition: $(x \text{ \%+ } y) = (x + (100-x)*(y/100))$
 - Large scores are hard to increase: $(90 \text{ \%+ } 20) = (90 + 2) = 92$
 - Small scores are easy to increase: $(10 \text{ \%+ } 20) = (10 + 18) = 28$

Additional ChoiceScript Tools & Resources

- Community Resources
 - Choice of Games Forums
 - <https://forum.choiceofgames.com>
 - Discord (Unofficial)
 - <https://forum.choiceofgames.com/t/master-list-of-cog-discord-servers/53225>
 - CSIDE development tool
 - **C**hoice**S**cript **I**ntegrated **D**evelopment **E**nvironment
 - <https://choicescriptide.github.io/>

Game Design Tips

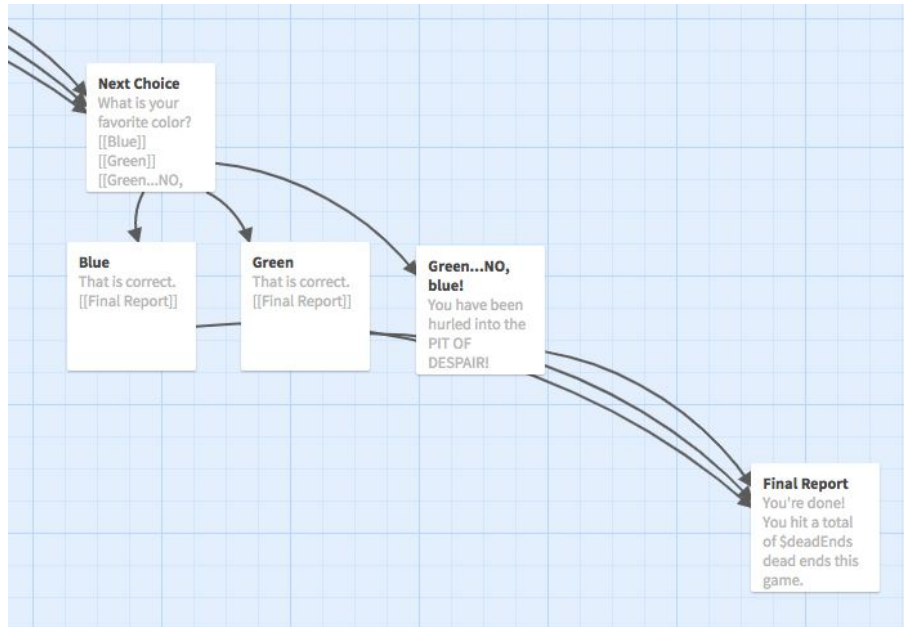
- Step 1: Play some ChoiceScript games!
- Notice which ones you like, and see if you can figure out why
- A lot of them have first the few chapters available to play for free
 - Try a few before deciding if you want to pay for the whole thing

Game Design Tips

- Step 2: Come up with an idea, and get a plan going
- I **strongly** recommend your first game is a very small game!
 - Keep the scope small!
 - If you have an idea and think “that’s too small,” that is how you know you’ve found the right-sized scope
 - Scope creep is a big thing in videogame development, it’s also true for text games

Game Design Tips

- Many options for planning your game, no right or wrong way
- Suggestions:
 - Use a branching dialog tool
 - ChatMapper (PC Only)
 - Twine (PC/Mac/Browser)
- Easy to visualize
- Easy to make changes



Game Design Tips

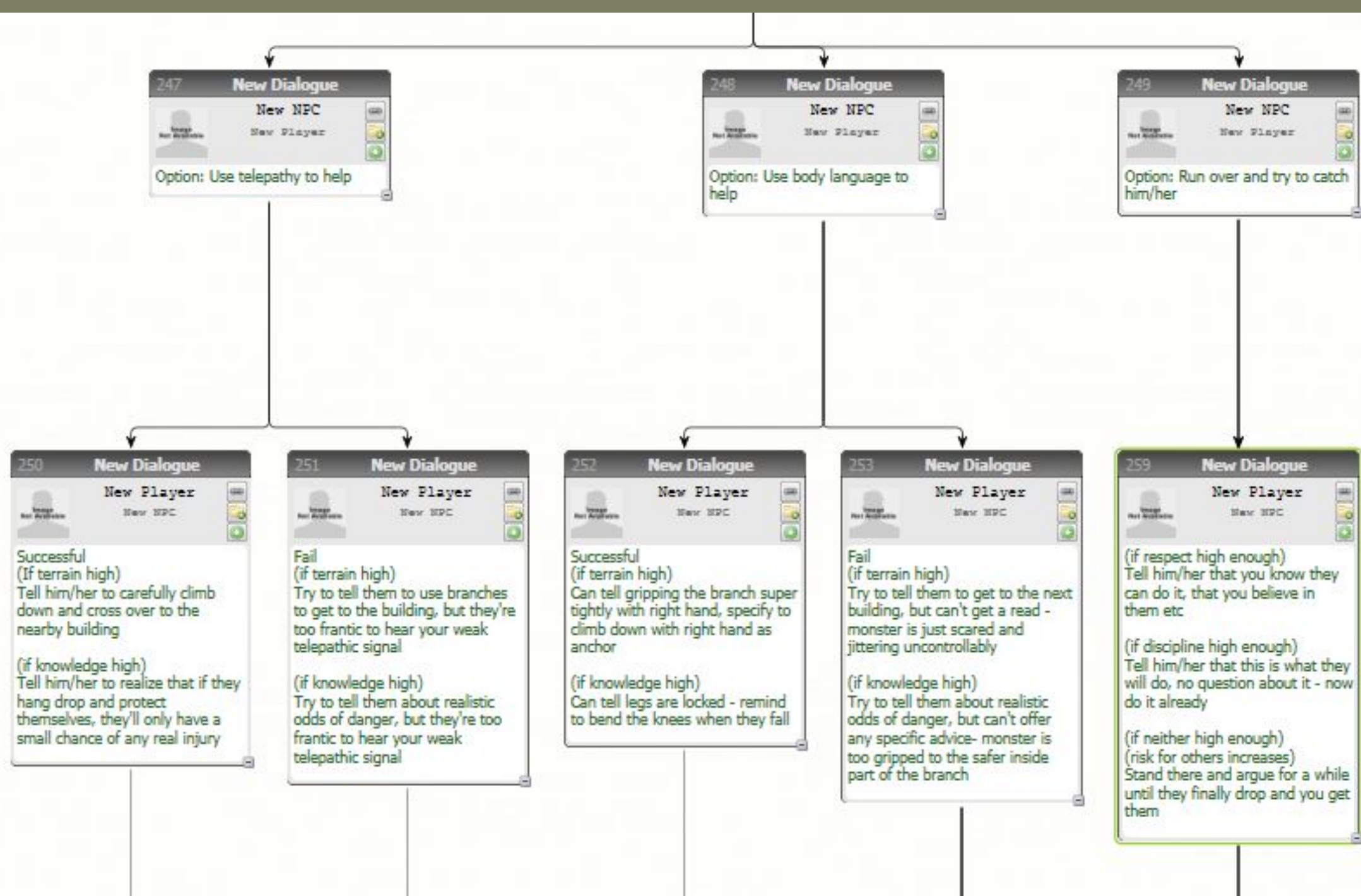
- My method: 6-Step Process
 - Outlined in more detail here:
dashjump.com/blog/writing-interactive-fiction-six-steps
- Step 1: Stub Text
- Step 2: Stub Text Revision (Yellow)
- Step 3: First-Pass Text (Orange)
- Step 4: Text Revision (Purple)
- Step 5: Variables (Blue)
- Step 6: Export & Logic (Green)

Game Design Tips

- Step 1: Stub Text
 - The first pass is all about laying down the structure for how the chapter will play out
 - Instead of writing any actual dialog or descriptions, use stub dialog as placeholders to indicate who will say what and when they'll say it, and what the player's options will be
 - Avoid excessive revisions (or any, if you can help it)

Game Design Tips

- Step 1: Stub Text
 - In the following sequence from *The Last Monster Master*, one of the player's monsters is stuck in a tree during an attack
 - The player must choose to use their Telepathy or Body Language detection skills to help the monster withstand the attack, or to run over and help directly



Game Design Tips

- Step 2: Stub Text Revision (Yellow)
 - Focus only on revising the structure you just created
 - Looking only at the placement of things – don't worry about misspellings or anything related to the text, since everything you've written will be replaced in revisions
 - You're primarily looking for choices or option branches that don't make sense or are inconsistent with the story, edge cases that can lead to problems later, and dead ends that don't link back to the main narrative flow

Game Design Tips

- Step 3: First-Pass Text (Orange)
 - With the structure organized and refined, now it's time to write the actual text the player will see
 - This is a fairly straightforward pass, but just as before, maintaining your focus is key
 - Don't worry about setting values for variables, structuring transitions, or anything else that isn't pure writing
 - And just like most pure writing, this is both the most fun and the most time-intensive (worst) part

247 **New Dialogue**

New NPC
New Player

Use Telepathy to help

248 **New Dialogue**

New NPC
New Player

Use Body Language to help

249 **New Dialogue**

New NPC
New Player

Run up and help him/her directly

250 **New Dialogue**

New Player
New NPC

Successful
(if terrain high)
You concentrate as hard as you can and reach out with your mind, telepathically coaching him/her to take a breath and carefully cross over from the branch and leap to the part of the Serenity training building's roof unaffected by the fire. It's risky, but the only safe way down.

You hear him/her signal an acknowledgement, and in a heart-pounding moment, you watch as he/she slowly eases away from the tree trunk - then sprints down the length of the branch and leaps to the building's roof, landing with a crash on the roof.

He/she expertly shimmy's his/her way down the side of the building and lands with a thump, running up to you as fast as he/she can.

(if knowledge high)
You concentrate as hard as you can and reach out with your

251 **New Dialogue**

New Player
New NPC

Fail
(if terrain high)
You concentrate as hard as you can and attempt to reach out with your mind to tell him/her to cross over from the branch to the part of the Serenity training building's roof unaffected by the fire...

(if knowledge high)
You concentrate as hard as you can and attempt to reach out with your mind to tell him/her to hang drop from the branch to a stable one below, since the odds of injury are lower than any other plan...

(resume)
but he/she is too panicked to hear you.

You try harder and harder to get through to him/her, and then it happens - his/her grip on the tree slips, and he/she falls through the tree, snapping twigs and bashing him/herself against jagged branches before slamming into

252 **New Dialogue**

New Player
New NPC

Successful
(if terrain high)
You squint and stare up into the tree, concentrating as hard as you can to focus on his/her body language for any clue on how to proceed... and there it is!

(if terrain higher than knowledge)
You can see that he/her has a death grip on the branch with his/her right hand. For all his/her coolheadedness, that reaction seems to be involuntary. You reach out and telepathically tell him/her to use that hand as an anchor as he/she climbs down.

You hear him/her signal an acknowledgement, and in a heart-pounding moment, you watch as he/she slowly eases him/herself down from the branch and begins the slow shimmy down the tree.

After an eternity, he/she is finally within striking distance of the ground. He/she hurls him/herself

253 **New Dialogue**

New Player
New NPC

Fail
(if terrain high)
You squint and stare up into the tree, concentrating as hard as you can to focus on his/her body language to find any clue to help ease him/her down...

(if terrain higher than knowledge)
but you just can't get a read. He/she is so panicked he/she can't help shaking uncontrollably.

*else
(if knowledge high)
but you just can't get a read. To protect him/herself, he/she's backed away into a hidden nook near the branch he/she's on, blocking your view.

(resume)
Before you can try again, his/her grip on the branch suddenly loosens - and in slow motion, you watch him/her fall through the tree, snapping twigs and bashing him/herself against jagged

259 **New Dialogue**

New Player
New NPC

You run as close as you can get to the tree, but the fire blocks you from getting too close.

Frantic, you reach out and yell to him/her as hard as you can.

(if respect high)
"You can do it! I know you have it in you! You just have to believe in yourself, and come down one step at a time!"

(if discipline high)
"Listen! I order you to find a safe path down here! So unless you want to directly disobey me, you better get to it!"

(resume)
You hear the faintest acknowledgement, and then, you glimpse his/her shape suddenly descend from the branch, grabbing on to another one below. Your heart is in your throat, but you can't look away.

Game Design Tips

- Step 4: Text Revision (Purple)
 - Time to start editing
 - Read through the first-pass text you just wrote with a merciless eye
 - Everything related to the text itself is fair game – spelling, grammar, incorrect references to characters or places, tighter word choices, etc.

Game Design Tips

- Step 5: Variables (Blue)
 - The structure is nailed down and the text is looking good
 - Find all places where variables are invoked, specifically anywhere where player stats are modified or referenced in order to determine outcomes
 - You'll refine the values later in revisions, gameplay balancing and playtesting
 - For now, set a baseline for where you think values need to be

247 New Dialogue

New NPC
New Player

Use Telepathy to help

248 New Dialogue

New NPC
New Player

Use Body Language to help

249 New Dialogue

New NPC
New Player

Run up and help him/her directly

250 New Dialogue

New Player
New NPC

*if telepathy > 70

*if serenity1monsterterrain > serenity1monsterknowledge
You concentrate as hard as you can and reach out with your mind, telepathically coaching him/her to take a breath and carefully cross over from the branch and leap to the part of the Serenity training building's roof unaffected by the fire. It's risky, but the only safe way down.

You hear him/her signal an acknowledgement, and in a heart-pounding moment, you watch as he/she slowly eases away from the tree trunk - then sprints down the length of the branch and leaps to the building's roof, landing with a crash on the roof.

He/she expertly shimmies his/her way down the side of the building and lands with a thump, running up to you as fast as he/she can.

*else

251 New Dialogue

New Player
New NPC

*else

*if serenity2monsterterrain > serenity2monsterknowledge
You concentrate as hard as you can and attempt to reach out with your mind to tell him/her to cross over from the branch to the part of the Serenity training building's roof unaffected by the fire...

*else
(if knowledge high)
You concentrate as hard as you can and attempt to reach out with your mind to tell him/her to hang drop from the branch to a stable one below, since the odds of injury are lower than any other plan...

(resume)
but he/she is too panicked to hear you.

You try harder and harder to get through to him/her, and then it happens - his/her grip on the tree slips, and he/she falls through the

252 New Dialogue

New Player
New NPC

*if bodylanguage > 70

You squint and stare up into the tree, concentrating as hard as you can to focus on his/her body language for any clue on how to proceed... and there it is!

*if serenity2monsterterrain > serenity2monsterknowledge

You can see that \${serenity2monster} has a death grip on the branch with his/her right hand. For all his/her coolheadedness, that reaction seems to be involuntary. You reach out and telepathically tell him/her to use that hand as an anchor as he/she climbs down.

You hear him/her signal an acknowledgement, and in a heart-pounding moment, you watch as he/she slowly eases him/herself down from the branch and begins the slow shimmy down the tree.

After an eternity, he/she is finally

253 New Dialogue

New Player
New NPC

*else

You squint and stare up into the tree, concentrating as hard as you can to focus on his/her body language to find any clue to help ease him/her down...

*if serenity2monsterterrain > serenity2monsterknowledge
but you just can't get a read. \${serenity2monster} is so panicked he/she can't help shaking uncontrollably.

*else
(if knowledge high)
but you just can't get a read. To protect him/herself, \${serenity2monster} has backed away into a hidden nook near the branch he/she's on, blocking your view.

(resume)
Before you can try again, his/her grip on the branch suddenly loosens - and in slow motion, you watch him/her fall through the

259 New Dialogue

New Player
New NPC

You run as close as you can get to the tree, but the fire blocks you from getting too close.

Frantic, you reach out and yell to him/her as hard as you can.

*if respect >= 65
"You can do it! I know you have it in you! You just have to believe in yourself, and come down one step at a time!"

*if discipline >= 65
"Listen! I order you to find a safe path down here! So unless you want to directly disobey me, you better get to it!"

(resume)
You hear the faintest acknowledgement, and then, you glimpse \${serenity2monster}'s shape suddenly descend from the branch, grabbing on to another one below. Your heart is in your throat, but you can't look away.

Finally, he/she drops far enough



Game Design Tips

- Step 6: Export & Logic (Green)
 - Finally, you need to bring your (almost) finished chapter into the development tool you're using to make the game itself
 - I typically move each node from the visualization tool into ChoiceScript, but it's possible to look into automated solutions if you're technical

Publishing Your Game & Making Money with Choice of Games



- Choice of Games: Three Publishing Tiers
 - Choice of Games (experienced writers)
 - Heart's Choice (experienced romance writers)
 - Hosted Games (new writers)
 - <https://www.choiceofgames.com/looking-for-writers>
- *“Our games, their design, and our company values are inclusive and egalitarian. We encourage applications from writers who are women and other marginalized genders, LGBTQ, disabled, and persons of color.”*

Publishing Your Game & Making Money with Choice of Games

- Choice of Games & Heart's Choice
 - Editorial & art support, advances, royalties, submission process, marketing
 - 25% royalties / \$7,500 advance over milestones (\$5,000 for Heart's Choice)
 - 10% royalties / \$10,000 advance over milestones (CoG only)
- Hosted Games
 - 25% royalties, no submission process
 - Financial details available here:
 - <https://www.choiceofgames.com/looking-for-writers>

Publishing Your Game & Making Money with Choice of Games

- Hosted Games
 - Run a public beta on the Choice of Games Forums
 - Undergoes content review
 - Submit final game, no milestones
 - Requires self-motivation, but a great way to make money and get started writing games!
- IP Ownership
 - At any publishing tier, the author retains their intellectual property

Publishing Your Game & Making Money with Choice of Games

- Distribution
 - Choice of Games Website
 - Choice of Games Omnibus iOS App
 - Google Play Store
 - Amazon Kindle Fire Store
 - Steam



Choice of Games 12+

Interactive Stories

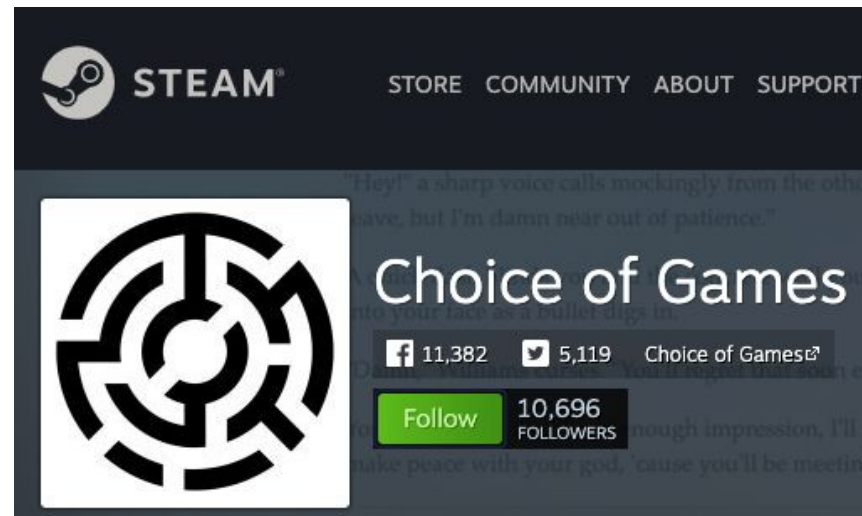
[Choice of Games LLC](#)

Designed for iPad

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[View in Mac App Store](#)



The End

That's it!

Slides at benserviss.com/talks