



Board Games in Your Library: How to Create Polished Tabletop Games to Use in the Classroom for Years to Come

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Gary R. Maixner III



Introducing Us



Mari's favorite games...

- Qwirkle
- Scrabble
- The Hollow Woods
- Spite & Malice
- Photosynthesis



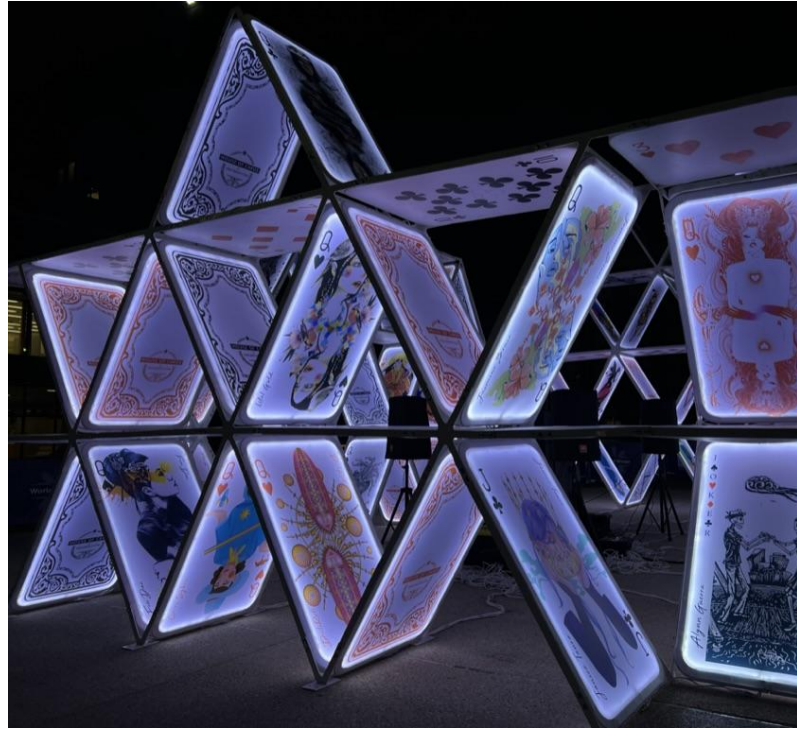
Gary's favorite games...

- Malifaux
- Bloodborne
- Binding of Isaac
- Moonrakers
- Donkey Kong '94



Big Thoughts on Games

It's not
about
games, it's
about the
experience



ACTIVITY TIME!



What separates a game from an activity?



Genlab, Frank. (2010).Curling. [Photograph]. Retrieved from Flickr

Evans, Bryan. (2017).Clean sweep. [Photograph]. Retrieved from Flickr



ASPECTS THAT MAKE AN ACTIVITY A GAME

- A goal, win condition, or problem to solve
- Decisions to make that affect game outcomes
- Artificial limitations on what a player can do (rules)
- Internal Stakes (maybe?)

Gamification




Game Based-learning



Edwards, Amanda. (2010). "Jeopardy!" Million Dollar Celebrity Invitational Tournament Show Taping. [Photograph]. Retrieved from [gettyImages](#)

Boristhefrog. (2009). Crazy hordes of things game. [Photograph]. Retrieved from [Flickr](#)

A photograph of a river flowing over rocks. The water is clear and reflects the sunlight. In the foreground, there are large, grey, textured rocks. A clump of green grass with yellowish seed heads grows on the right side of the rocks. The background shows more rocks and water, slightly out of focus.

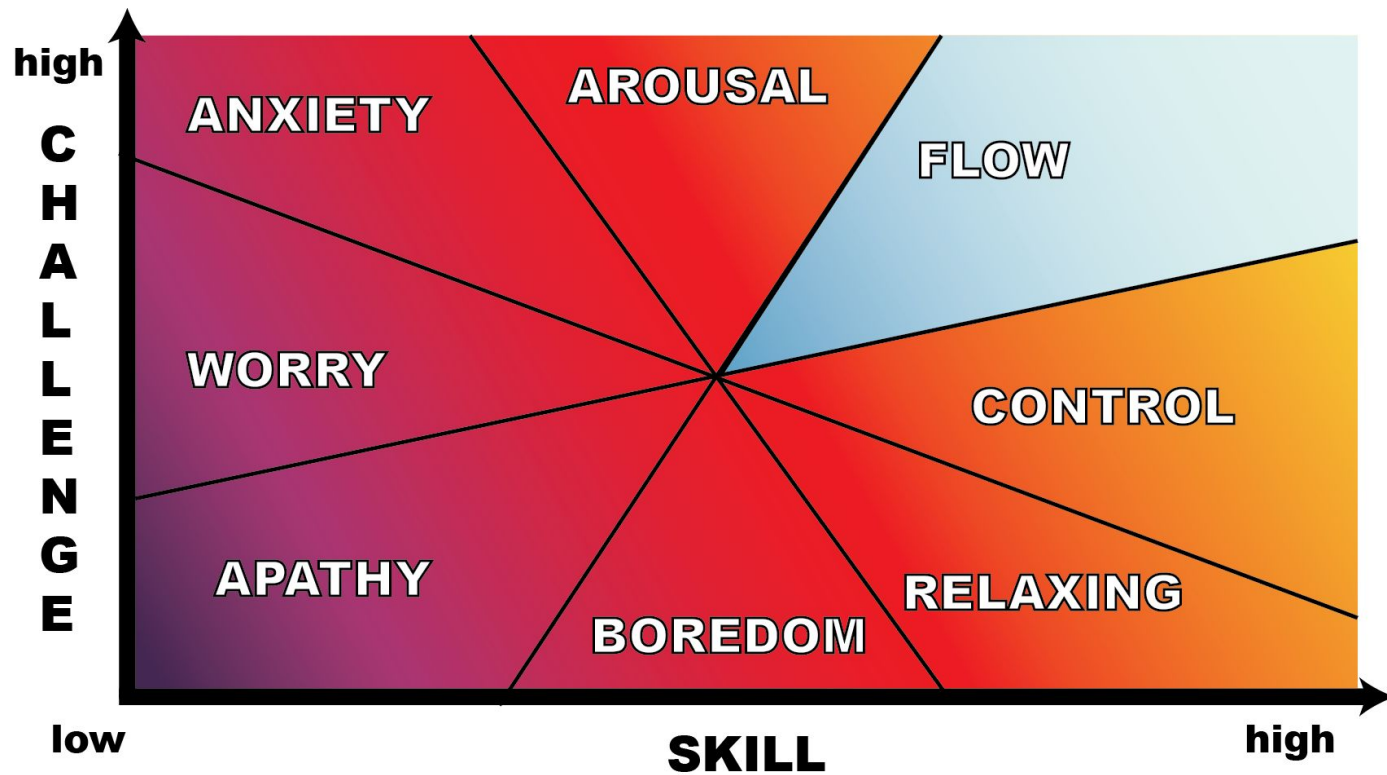
POSITIVE PSYCHOLOGY AND FLOW THEORY

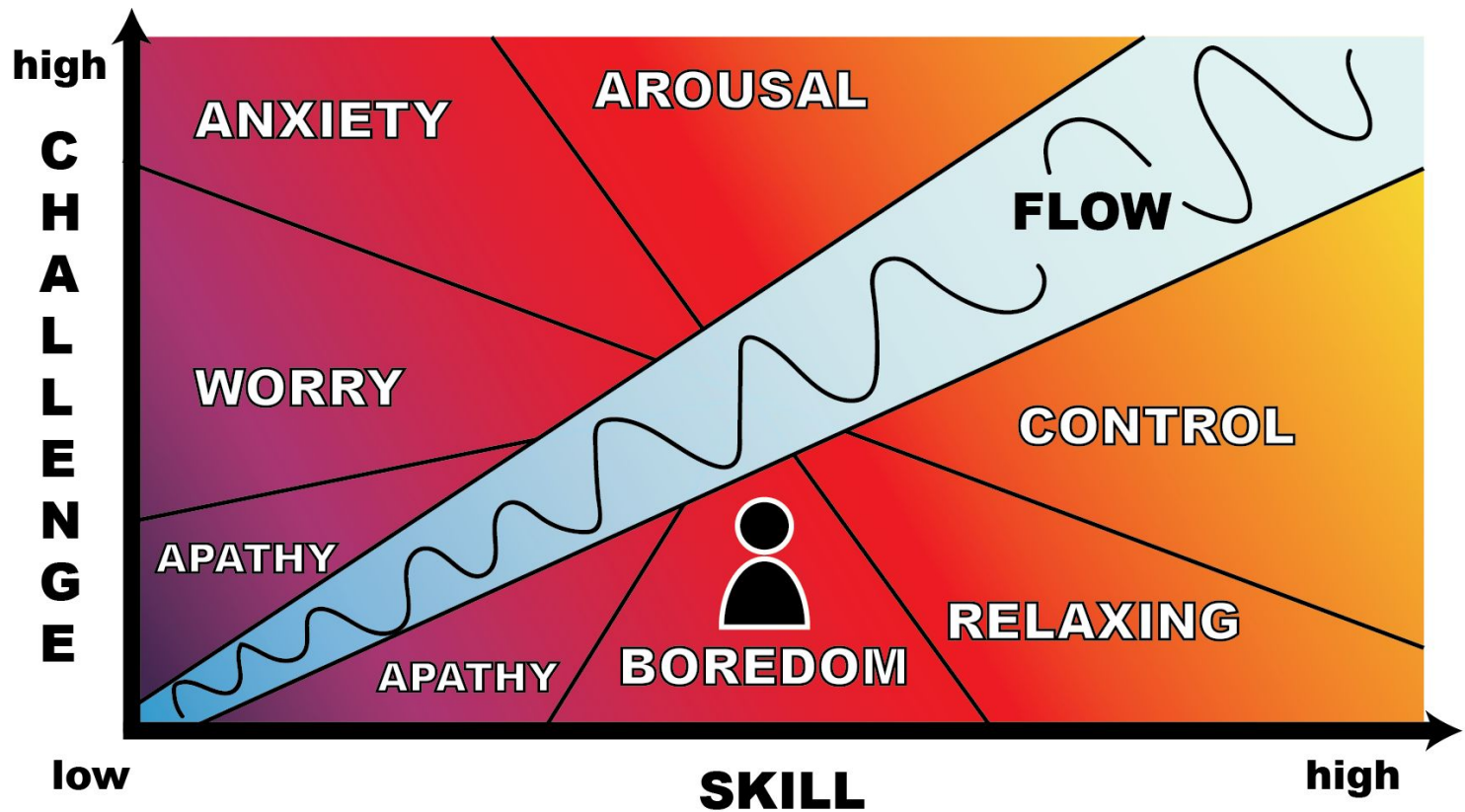
Dibben, David. (2013). *River*. [Photograph]. Retrieved from Flickr

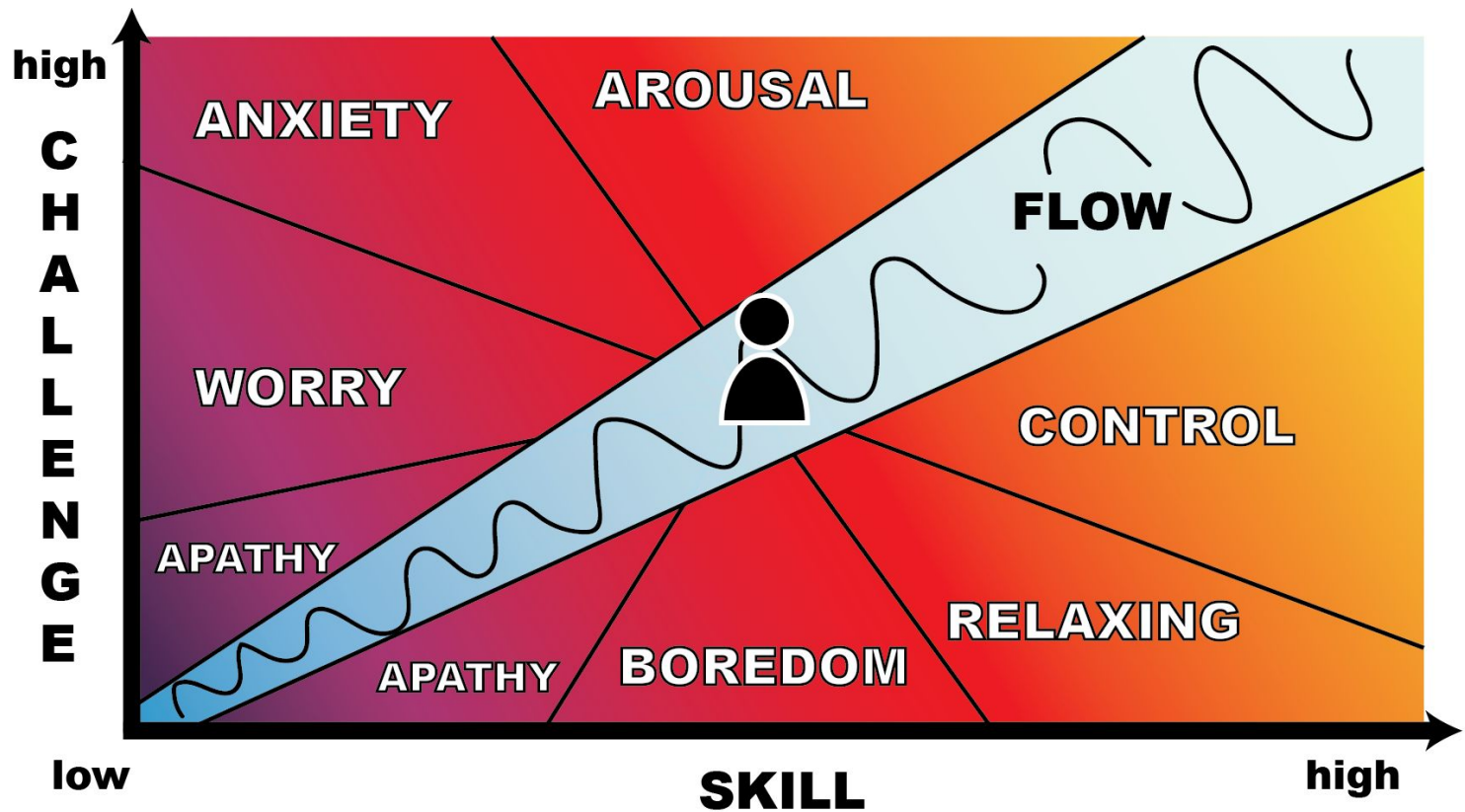
Mihály Csíkszentmihályi (Me-high Chick-sent-me-high)



TED. (2008). *Flow, the secret to happiness*. [screen capture]. Retrieved from YouTube







Dopamine and Memory

- **Areas related to the brain's dopaminergic reward system are more active during flow** (Ulrich et al., 2014, 2016)
- Problem solving leads to dopamine release.
- Positive experiences during flow state coupled with dopamine release = remembered successes.



Audience and Player Experience: Control to Chaos



<https://flic.kr/p/dPgH7C>

Sinfonia⁷
Presto

Flauto I, II
Oboe I, II
Clarinetto I, II
in La/A
Fagotto I, II
Corneo I, II
in Re/D
Clarino I, II
in Re/D
Fimpani
in Re-La-D-A
Violino I
Violino II
Viola I, II
Violoncello
e Basso

Fl.
Ob.
Clar.
in La
Fag.
Cor.
in Re
Vl.
Vll.
Va.
Vc. & B.

⁷) Eine Detailskizze zur Sinfonia ist als Anhang III/1, S. 628, mitgeteilt. / A detailed sketch of the Sinfonia is reproduced as Appendix III/1, p. 628.

© 1973 by Bärenreiter-Verlag, Kassel

Mozart - control

Bc. Cl.
Xylo 1
Xylo 2
Mar. 1
Mar. 2
Pno. 1
Pno. 2
Pno. 3
Player 1
Pno. 3
Player 2
Pno. 4
Player 1
Pno. 4
Player 2
Voice 1
Voice 2
Voices
Vln.
Vc.

Steve Reich - controlled chaos

4'33"

for any instrument or combination of instruments

John Cage

60♩ = \longleftrightarrow
4/4

I

3

5

7

9

33"

60♩ = \longleftrightarrow
4/4

II

3

16

32

16

Detailed description: The image shows the musical score for John Cage's '4'33" in 4/4 time. It is divided into two sections, I and II. Section I consists of five staves of music, each with a treble clef and a 4/4 time signature. The first staff has a tempo marking '60♩ = \longleftrightarrow' above it. The second staff has a measure rest marked '3'. The third staff has a measure rest marked '5'. The fourth staff has a measure rest marked '7'. The fifth staff has a measure rest marked '9'. Section II consists of two staves of music, each with a treble clef and a 4/4 time signature. The first staff has a tempo marking '60♩ = \longleftrightarrow' above it. The second staff has a measure rest marked '3'. The score is set against a background of colorful dice with numbers on them.

© Copyright 2014 by Henmar Press, Inc., New York, NY

John Cage - Is it all control, or all chaos?



Robert Rauschenberg

White Painting [three panel], 1951 — What is the audience experience here and is there any audience participation? What does the artist control?

Aleatoric Art - an element of uncertainty is intentionally incorporated into the concept and creation of a work.

Can you think of other examples of this practice?



Writing Learning Objectives for Information Literacy Instruction

In this game students will “_____ to _____”

What are the objectives for instruction librarians:

This game will _____ the instruction librarian to _____”

Are there objectives for course instructors?:

This game will _____ the instructor to _____”

Bloom's Taxonomy

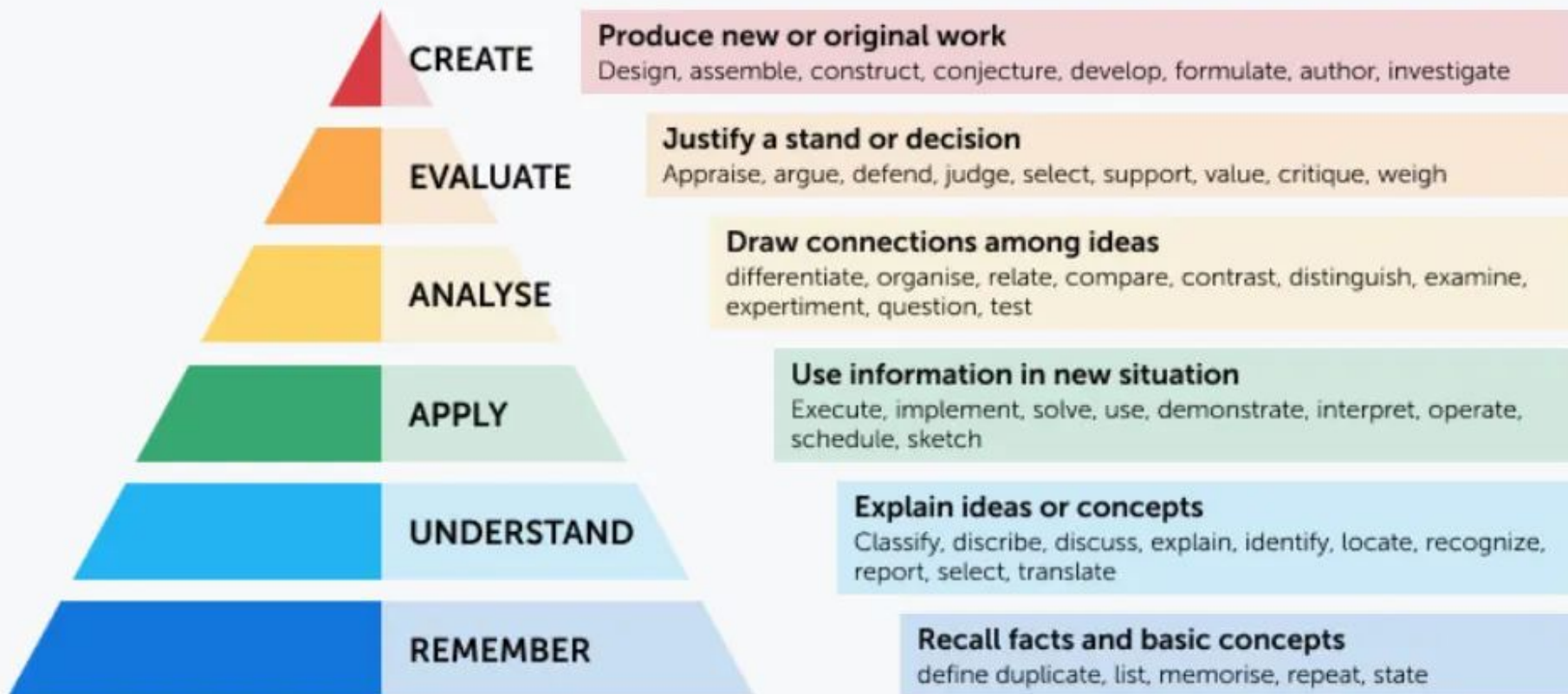


Table 25.1 Verbs for Use in Writing Learning Objectives

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
cite	associate	administer	analyze	adapt	appraise
collect	classify	apply	arrange	assemble	argue
copy	convert	calculate	breakdown	collaborate	assess
define	describe	change	categorize	combine	conclude
describe	differentiate	chart	classify	compile	convince
duplicate	discuss	choose	compare	compose	criticize
enumerate	distinguish	collect	connect	concoct	decide
identify	estimate	compute	contrast	construct	deduce
label	explain	construct	correlate	contrive	defend
list	express	demonstrate	detect	create	determine
match	extend	determine	diagram	design	discriminate
memorize	group	develop	differentiate	develop	infer
name	identify	discover	discriminate	devise	interpret
order	indicate	employ	dissect	formulate	judge
quote	order	establish	distinguish	generalize	justify
recall	paraphrase	examine	divide	generate	persuade
recognize	predict	exhibit	examine	hypothesize	prioritize
record	report	illustrate	experiment	imagine	rate
recount	restate	interview	group	incorporate	rank
relate	retell	manipulate	identify	integrate	recommend
repeat	review	modify	illustrate	invent	relate
reproduce	select	operate	inspect	modify	revise
show	summarize	practice	interpret	organize	score
specify	translate	predicts	investigate	originate	support
state	understand	prepare	order	plan	value
tabulate		produce	organize	predict	validate
tell		relate	outline	produce	
when		report	probe	propose	
what		schedule	question	reconstruct	
where		show	relate	reorganize	
who		sketch	select	revise	
		solve	separate	speculate	
		transfer	survey	systematize	
		use	test		

Examples of Mechanics

- Deck Building
- Bidding
- Area Control
- Piece Capture
- Exploding Dice
- Race
- Realtime
- Worker Placement

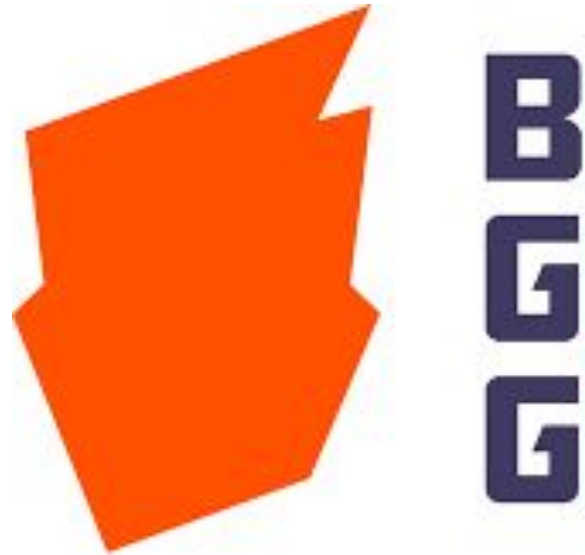
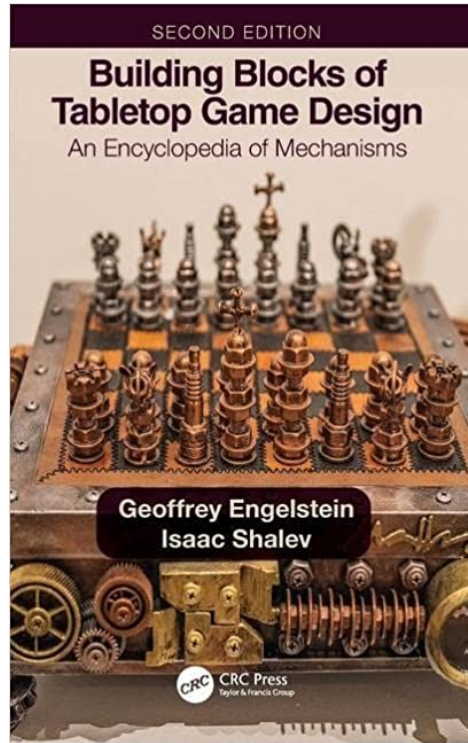


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memorize	group	develop	differentiate	develop	infer
name	identify	discover	discriminate	devise	interpret
order	indicate	employ	dissect	formulate	judge
quote	order	establish	distinguish	generalize	justify
recall	paraphrase	examine	divide	generate	persuade
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relate	retell	manipulate	identify	integrate	recommend
repeat	review	modify	illustrate	invent	relate
reproduce	select	operate	inspect	modify	revise
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what		schedule	question	reconstruct	
where		show	relate	reorganize	
who		sketch	select	revise	
		solve	separate	speculate	
		transfer	survey	systematize	
		use	test		

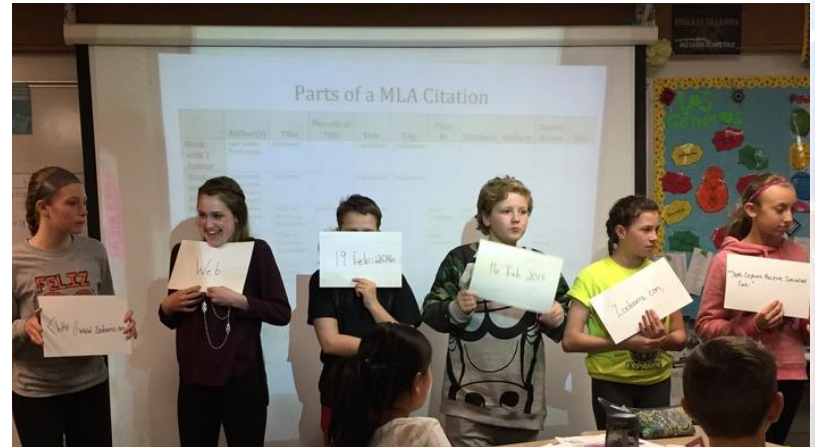
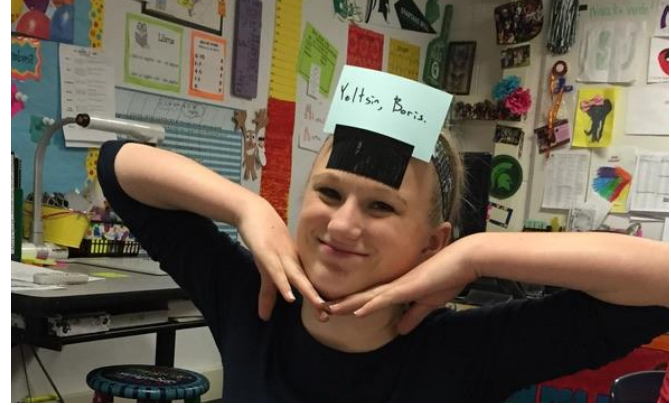
Pair your Learning Objectives with Game Mechanics:

Students will IDENTIFY parts of a citation.

- Knowledge

Students will CONSTRUCT a citation.

- Application





IN YOUR GROUPS:

HOW WOULD YOU TEACH THIS BASIC
CONCEPT USING A GAME MECHANIC?

NESTING FOLDERS

Winning a Game/Losing a Game



slgckg. (2012). Race Medals. [Photograph]. Retrieved from Flickr

CHAOS: Randomize for Replayability



Rivola, Andrea. (2024). *Mushroom Dice Set for DnD*. [Photograph]. Retrieved from *Printerval Ultimate Marked Set*. [Photograph]. Retrieved from *Amazon*
Twice, Erik. (2022). *Vagrantsong Ghost Boss*. [Photograph]. Retrieved from *ErikTwice*



REPETITION: For content RETENTION

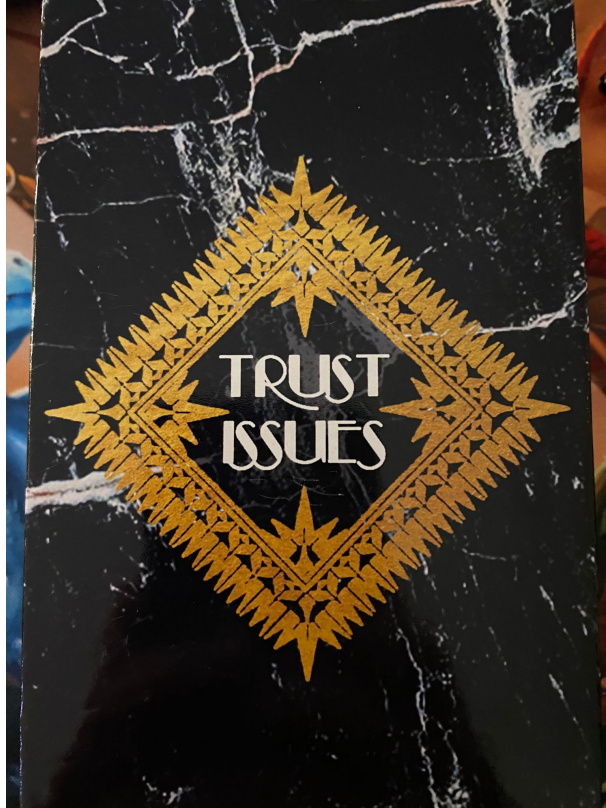
- How does your game include REPETITION?
- How does REPETITION combine with RANDOMIZATION to create that dopamine response?
- How does a player IMPROVE as they play and how does IMPROVEMENT lead to CONCEPT RETENTION?

Card Maths



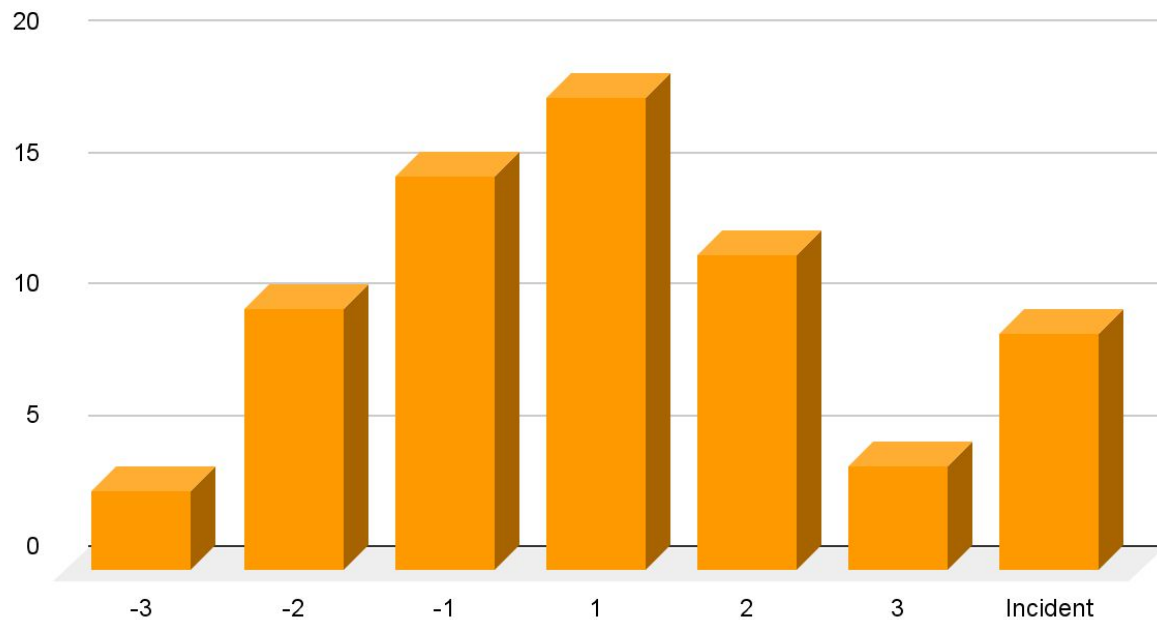
Ian Dikhtiar / EyeEm / Getty Images

Momentum



Momentum pt. 🙌

Cards in Deck



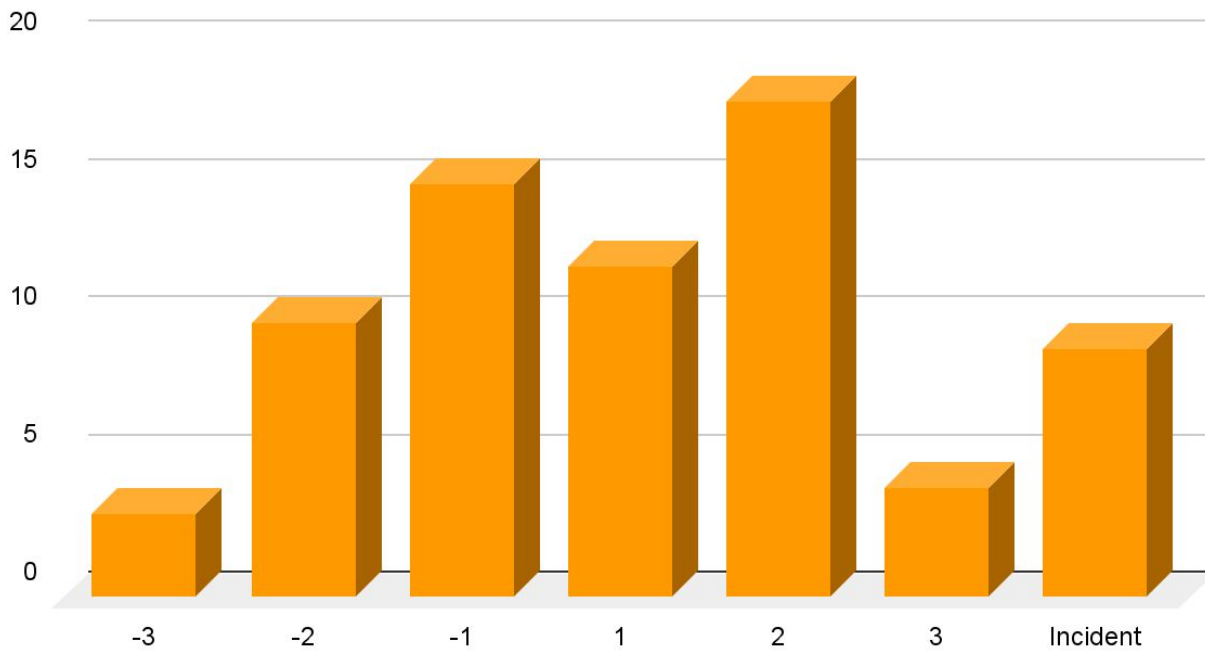
Positive cards
48%

Negative Cards
40%

Incident Cards
12%

Momentum pt. 🤘

Cards in Deck





Game Production



What is the scope of your project?

- Is it a small one-time in-class knock-off or a big publication?
- Do you have Adobe Skillz?
- Are you an artist? Best friends with an artist?
- Do you want to deal with copyright?
- DO YOU WANT TO DEAL WITH THE LAWYERS AT YOUR UNIVERSITY?
- Do you want to make money?
- Do you still want to be working on this game in 10 years?

What is the FEEL of your game? What place do your players occupy?



All images created by Mari.... uh, Midjourney.

Make a manageable production process:



By User: Anonyme - Own work, CC BY 2.5, <https://commons.wikimedia.org/w/index.php?curid=1987247>



Properties Adjustments Libraries

Pixel Layer



Quick Actions

Remove Background

Select Subject

Layers

Channels

Paths

Kind



Normal

Opacity: 100%

Lock: Fill: 100%

KW:

Comet

Search & Destroy

Layer 9

Layer 8

Layer 7

▼  Search&Destroy - Mari stuff

 2021 rules update document.docx

>  2021 Updates


 Search&Destroy Postcard 2019 Update.pdf

 search and destroy postcards full page front 2019 update.pdf


 search and destroy postcards full page front w website url.pdf

>  source pictures

>  Search and Destroy - Gary Edits

>  Backs and Singles PSDs


▼  KW PSDs

 blank_keyword.psd

 Search and Destroy - volcano front.psd


 Search and Destroy - KW- Night.psd


 Search and Destroy - KW- Knight.psd

 Search and Destroy - KW Zombie front.psd

 Search and Destroy - KW yacht front.psd

 Search and Destroy - KW Volcano front.psd

 Search and Destroy - KW Treasure front.psd

A large, bold, black copyright symbol (©) is centered on a white background. The symbol consists of a thick black circle with a smaller, also thick black circle inside it. The background is a white circular area that is surrounded by a ring of colorful, translucent dice in various colors including blue, orange, red, green, and grey. The dice are scattered and some are slightly out of focus, creating a bokeh effect around the central white circle.

©

A large, bold, black trademark symbol (TM) is centered on a white background. The symbol consists of a thick black circle with the letters 'TM' in a bold, sans-serif font inside it. The background is a white circular area that is surrounded by a ring of colorful, translucent dice in various colors including blue, orange, red, green, and grey. The dice are scattered and some are slightly out of focus, creating a bokeh effect around the central white circle.

TM

Creating a Rulebook



edpmarriott. (2014). *Teaching Pyramid*. [Illustration]. Retrieved from *Boards and Barley*

Playtest your Rules!



Follow the Rules. [Photograph]. Retrieved from New Beginnings Sanctuary



Making Art/Buying Art

Free Options

- Public Domain or Creative Commons
- Make it yourself

Paid Options

- Procure art from an artist
- Stock Art



Calculate Your Production Costs: What are your goals?

- What can your audience afford? Is this for a class? How many copies will a classroom need?
- How big is your box?
- Do you have a game board (\$\$\$\$\$)?
- What size are your cards? How many of them are there?
- What cardstock and finish did you choose?
- How big is your rulebook and how many pages are there?
- Can your students swallow your game pieces (jk)?
- Can you go for ADA compliance?

Search&Destroy

 \$29.90Make Sell  Test Promote Crowd Sale**Components**

Production Cost



















Name

Ownership

Organization

Surfacing

All Components 

 Component	Quantity		
BOOKS			
 Search & Destroy Rules Small Booklet	<input type="text" value="1"/>		
CARDS			
 Keyword Deck Poker Deck	<input type="text" value="1"/>		
 Play Deck Poker Deck	<input type="text" value="1"/>		
 Rules Deck Poker Deck	<input type="text" value="1"/>		
PACKAGING			
 Untitled Small Pro Box Small Pro Box	<input type="text" value="1"/>		

 Add Custom Component Add Stock Component Add Downloadable File Add Embedded Game

At a Glance

Cost Each ~~\$31.01~~ \$29.90**Bulk Cost Each** 19.52**Weight** 10.15 oz**Suggested Box** SmallProBox**Dimensions** 5.85x3.85x1.15 inches

Search&Destroy

 \$29.90[Make](#) [Sell !\[\]\(99f58673407353e96a019fbca558fd72_img.jpg\)](#) [Test](#) [Promote](#) [Crowd Sale](#)

Components

Production Cost

[Name](#)[Ownership](#)[Organization](#)[Surfacing](#)

	Component	Quantity	Sheets	Slugs	Cost (1)	Weight	Size
	Small Pro Box	1	1		\$7.10	1.25	
	Small Booklet	4	1		\$2.30	0.06	
	Poker Deck	128	8		\$20.72	8.62	
	* Fee(s)	1			\$0.89	0.22	
Subtotal Game Cost					\$31.01		
Designer Rewards Manufacturing Discount					\$1.11		
Total Game Cost					29.90		

Online Printing Services



Distribution

- Sell a printed version
 - Game Crafter has a store front
- Sell print-on-demand
 - Drivethrurpg
- Provide free print on demand

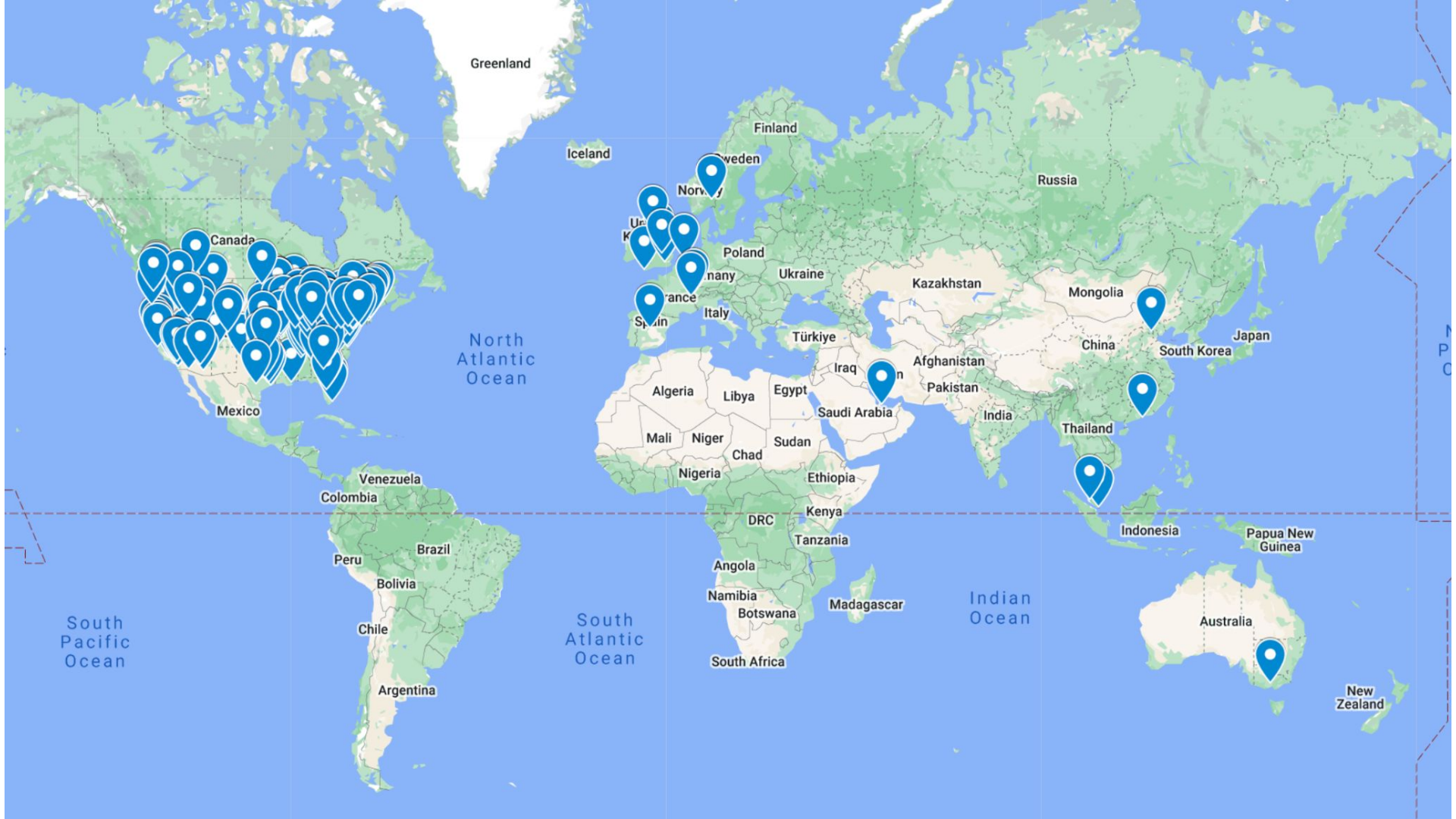


The image displays six promotional cards for digital products from D-VERSE, arranged in a 2x3 grid. Each card features a 3D model of the product within a wireframe room, with the D-VERSE logo and product name below it. The text 'FREE to download on our D-Mart web store' is at the bottom of each card.

- CRATE STL**: A blue wireframe crate.
- FLOOR SAW STL**: A blue floor saw.
- FLOOR SPIKES STL**: A blue floor spike.
- PILLAR STL**: A blue pillar.
- TILES & TOKENS PDF**: A collection of colorful tiles and tokens.
- ACTION MENUS PDF**: A collection of colorful action menus.



ASSESSMENT



Contact Us!

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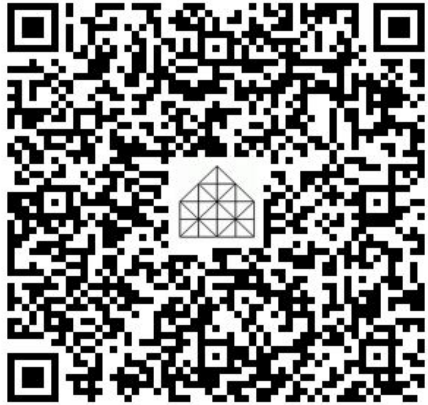
wunderkind-games.com

Background Image

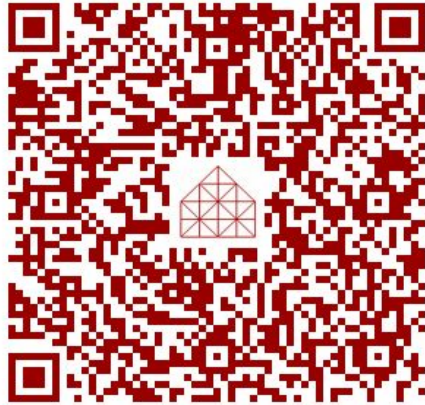
CarrieLu. (2010). Dice. [Photograph]. Retrieved from Flickr



QR Codes



Preso Slides!



Printable Handout



Game Ordering