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# Gaming the Systems

A Conceptual Framework Breaking Down RPGs Into Their Component Parts, To  
Better Analyze For Use In Educational Settings

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# Rationale

With the increased public awareness of RPGs through popular media such as *Stranger Things* and the rise in popularity of RPGs in therapeutic and educational settings, there is a growing need for a formalized methodology for teachers to use when selecting or designing RPG experiences for use in an educational setting.

This methodology must provide teachers a framework which they can use to design, implement, and evaluate RPGs according to their usefulness in accomplishing specific skill goals.

For RPGs to gain traction as educational tools, there must be a shared vocabulary teachers and practitioners can use when examining and discussing RPGs in the classroom.



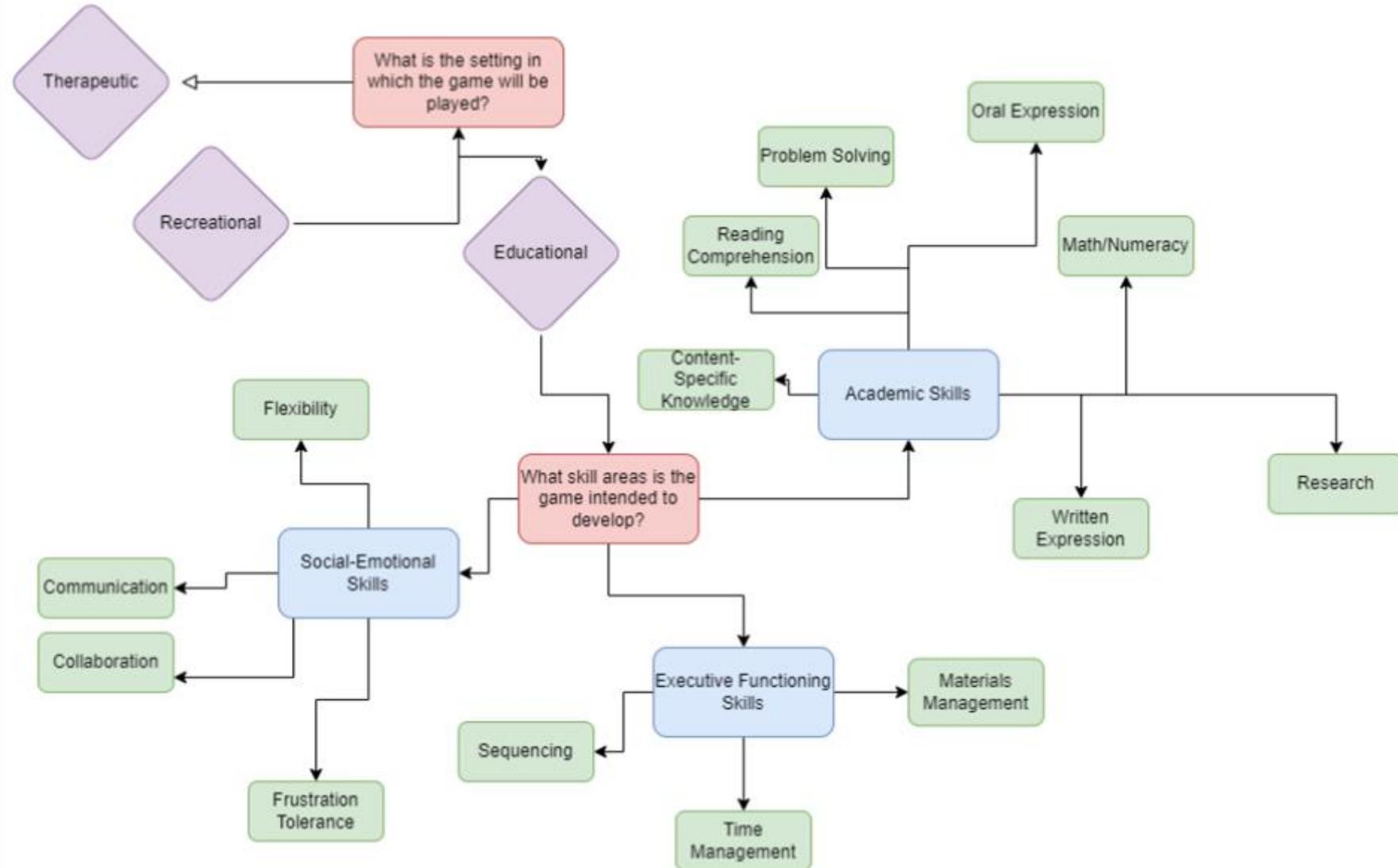
# Step 1: Defining Desired Skill Outcomes



Three main skill areas of focus:

- **Social-Emotional Skills**
  - Flexibility
  - Frustration Tolerance
  - Communication
  - Collaboration
- **Executive Functioning Skills**
  - Sequencing
  - Time Management
  - Materials Management
- **Academic Skills**
  - Content Specific Knowledge
  - Literacy
  - Oral Expression
  - Written Expression
  - Research
  - Numeracy
  - Problem Solving

Gaming the System Flowchart - Version 11.26.2021



## Step 2: Identifying Game Elements that Can Support Those Skill Outcomes

- Drawing on the work of Klabbers, Fine, and many others, we suggest the following discursive framework to discuss component parts of the RPG experience in the classroom:
  - Structural Elements
    - The rules as written
  - Functional Elements
    - The experience and course of play
  - Material Elements
    - The required physical or cognitive pieces required for play



## Step 3: Crafting the Matrix

- Links game elements to skill outcomes
- Supports teacher evaluation of games as curriculum
- Guides teacher decision making by illuminating contextual considerations



<p><u>Context:</u> Describe the players (age, grade, RPG experience etc.) Describe the setting (time allotted for play, institutional culture, etc.) What experiences do students have with role playing games? Games? Collaboration? Describe gameplay resources available: What other factors impact gameplay?</p>			
<u>Desired Outcome</u>	<u>Structural Elements</u> <i>Examples of rules &amp; norms that structure the play experience</i>	<u>Material Elements</u> <i>Examples of material or conceptual elements needed for play</i>	<u>Contextual Elements</u> <i>Constraints &amp; Considerations for Setting within which the play will take place</i>
<b>Academic Skills</b>			
Content Specific Knowledge	Rules include expectations of use of content material, vocabulary and concepts for character and/or plot advancement	Materials that support use of content knowledge, such as equations, timelines, sentence starters, key vocabulary	What background information do students currently have? What knowledge do you intend to teach through this game? What specific vocabulary will students need?
Reading Comprehension	Rules written in a format/reading level appropriate to the reading level of students. Puzzles, advancement, connected to demonstration of reading skills as appropriate to class reading level	Embedded reading content as a significant component of gameplay or advancement. Player copies of reading for use in annotation, close reading, note taking	Is the reading level of the text(s) appropriate to the reading levels of the students? What specific vocabulary will they need? What vocabulary or concepts will you teach? What kinds of texts will be embedded in the game?
Problem Solving	Gameplay that focuses on collaboration, sharing resources or puzzle solving with norms that support equity of voice and collaborative thinking.	Hands on components that support student thinking while solving puzzles	Is the developmental level of the players a good match for the challenges presented in the puzzles? What experiences with puzzle solving do they have? Will they need direct instruction?

<b>Social Emotional Skills</b>			
Communication	Rules for turn taking, rules with a focus on collaborative solutions, rules that require specific kinds of communication between players	In-game diegetic conversation sentence starters or prompts to support students, safety tools	What structures are already in place in the classroom that can be built upon?
Flexibility	Rules that make space for changing circumstances or require players to alter their style of play as the game progresses	Games where players need to come to consensus to advance, games where decisions are made collectively, games where players make choices that impact other players, games where players must solve a problem in multiple ways	What are the norms and expectations for managing disagreement in the classroom? How skilled are students in communicating their needs? How much processing time is needed for students to consider each others' ideas?
Collaboration	Gameplay that specifically require or encourage working together, low combat, collaborative world building	Shared, limited diegetic resources, use of safety tools	What is the social power dynamic between the students? What are the norms and expectations for managing disagreement in the classroom? Do students have the appropriate vocabulary to express their needs and offer help or support to others?
Frustration Tolerance	Gameplay involves puzzle solving, "Choose your Own Adventure" style pathways with opportunities to change choices, low stakes for failure	Visual representations of progress - maps, visual representations of % of damage done to enemies, safety tools	How is this process modeled and supported in the classroom? What practices are in place to support students who struggle to process their emotions? How is equitable 'airtime' secured for all students in this class?



## Limitations and Next Steps

- Put Matrix into practice with real teachers & classrooms
  - This will allow us to gather feedback from practitioners, evaluate the matrix, and revise as needed
- Matrix does not account for every possible gameplay experience in a classroom setting.
  - There are many types of learning that are spontaneous and cannot be designed or accounted for in advance

