



Project: PowerUP – 101252479

PowerUP - Power up digital citizens: children designing video games to tackle online risks

# Format and Methodology of Video Game Creation by Children

A methodology guide for facilitating child-led video game design  
in online safety education



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# 1. Introduction

## 1.1 Project Context & Purpose of This Guide

“PowerUP – Power Up Digital Citizens: Children Designing Video Games to Tackle Online Risks” is a two-year initiative co-funded by the European Union under the CERV-2025-CHILD call (project n° 101252479). The project equips teachers and educators to facilitate a child-led game-design process in which children aged 8-13 design their own short, interactive narrative games that address online safety topics, including cyberbullying, misinformation and fake news, online privacy, hate speech, online grooming, and online wellbeing and mental health challenges.

This Guide builds on the first Teacher and Educator Training Workshop, held in Portugal on 9 and 11 June 2026, and translates the knowledge, methods and practical activities introduced during the training into a standalone methodology. It sets out a reusable format, structure and step-by-step process that teachers and educators can apply independently when guiding children through the creation of video games addressing online safety. The methodology is designed to be flexible to work in different schools, classroom settings and national contexts.

Concretely, this guide:

- Explains the pedagogical rationale for child-led game design, so teachers can confidently present it to colleagues and school management.
- Sets out a practical format for organising the activity in a classroom: timeline, group composition, roles and materials.
- Details the narrative design and inclusive design principles that keep children's stories safe, meaningful and representative.
- Walks through the design process step by step, from topic choice to a playable prototype.
- Presents the evaluation indicators co-created with input from children, teachers and partners, used to review the games produced.
- Provides a facilitator checklist, including a simple way to capture children's own feedback on the experience.

## 1.2 Who This Guide Is For

This guide is written for teachers and educators who will facilitate the game-creation process with children aged 8-13 in a classroom setting. It assumes familiarity with the key

concepts, but each chapter is written to stand on its own, so it can also support educators who were not involved in the initial training and schools or organisations wishing to replicate the methodology in other educational contexts.

### 1.3 How to Use This Guide

Chapters 1 to 8 build progressively, moving from the pedagogical rationale and classroom organisation to the two age-adapted modalities, narrative principles, the step-by-step design process, inclusive design and evaluation. Chapter 9 brings these elements together in a practical facilitator checklist. The annexes gather the templates and reference materials used throughout the methodology.

Note: Teachers may wish to print Annexes A, B, D and F separately for classroom use.

#### **How this Guide Builds on the Teacher Training**

This guide builds on the teacher and educator training carried out at the beginning of the PowerUP activities. While the training introduced educators to online safety, child-led game design and the tools used in the classroom, this guide translates those elements into a practical methodology that teachers can use independently with children.

The methodology is designed to be flexible and transferable. It can be adapted to different school contexts, age groups and classroom settings, and will also inform future resources supporting the replication of the PowerUP approach.

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## 2. Why Children Design, Not Just Play

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This chapter sets out the pedagogical case for the PowerUP approach: why asking children to design a game about an online safety topic produces deeper, more lasting learning than showing them a game, a video, or a poster about the same topic.

### 2.1 From Passive Recipient to Active Creator

Traditional online safety education tends to rely on a single class, delivered once, in which adults transmit a rule and children receive it. This approach rarely produces lasting behavioural change and is not well suited to the attention span or motivation of children aged 8-13. PowerUP reverses the flow: instead of receiving a message, **children become active creators**, designing a character, writing a choice, and living with its consequence. A game asks the underlying question concretely: What would you do next?

### 2.2 Four Pillars: Why Game Design Works for Online Safety

- **Learning by Making** – creation deepens understanding more than consuming or listening. Designing a game about cyberbullying requires a child to understand it from every angle.
- **Systems Thinking** – game design forces children to model cause and effect, choices and consequences, precisely the cognitive work online safety education demands.
- **Narrative Empathy** – designing a character's digital experience demands perspective-taking, for both the person harmed and the person causing harm.
- **Inclusion Through Making** – game cards and visual design support children with language barriers, learning differences, or lower verbal confidence. No child is left outside the creative process.

## FOUR PILLARS — WHY GAME DESIGN WORKS FOR ONLINE SAFETY



### Learning by Making

Creation deepens understanding more than consuming or listening. Designing a game about cyberbullying requires a child to truly understand it — from every angle.



### Systems Thinking

Game design forces children to model cause & effect and choices & consequences — precisely the cognitive work that online safety education demands.



### Narrative Empathy

Designing a character's digital experience demands perspective-taking. Understanding the perpetrator and the victim from the inside achieves more than any poster.



### Inclusion Through Making

Game cards and visual design support children with language barriers, learning differences, or lower verbal confidence. No child is left outside the creative process.



## 2.3 The Research Base

The methodology draws on an established and growing evidence base for learning-by-making and game-based online safety education:

In recent years, a growing body of research has underlined why game-based, child-authored approaches are particularly powerful for digital literacy and safety education. Kafai and Burke (2016)<sup>1</sup> show that children who create content rather than simply consume it demonstrate markedly better retention of what they learn, while Gee (2007)<sup>2</sup> finds that designing a game around a given topic leads to measurably deeper understanding than engaging with that topic in a purely passive way. Within the European context, EU Kids Online (2020)<sup>3</sup> and the EU Strategy on the Rights of the Child<sup>4</sup> identify ages 8–13 as a peak window for establishing digital safety habits through play and note that although exposure to online risks varies between countries, a consistent awareness–preparedness gap persists across Europe. Building on this, Esfandiari et al. (2025)<sup>5</sup>, in a systematic scoping review of 34 studies, report that game-based learning is the single most widely

<sup>1</sup> Kafai, Y. B., & Burke, Q. (2016). *Connected gaming: What making video games can teach us about learning and literacy*. MIT Press.

<sup>2</sup> Gee, J. P. (2007). *What video games have to teach us about learning and literacy* (2nd ed.). Palgrave Macmillan.

<sup>3</sup> Smahel, D., Macháčková, H., Mascheroni, G., Dedkova, L., Staksrud, E., Ólafsson, K., Livingstone, S., & Hasebrink, U. (2020). *EU Kids Online 2020: Survey results from 19 countries*. EU Kids Online.

<sup>4</sup> European Commission. (2021). *EU strategy on the rights of the child* (COM(2021) 142 final). Publications Office of the European Union.

<sup>5</sup> Esfandiari, M., Sciacca, B., Feijóo, S., Laffan, D. A., Milosevic, T., O'Toole, C., & O'Higgins Norman, J. (2025). Trends in digital technologies to address children's online safety education: A systematic scoping review. *International Journal of Educational Research Open*, 9, 100462. <https://doi.org/10.1016/j.ijedro.2025.100462>

used approach to children’s online safety education, reinforcing the decision to foreground playful, game-based methods in PowerUP from the outset. Finally, Zhang et al. (2026)<sup>6</sup> present a cooperative-inquiry study in which children aged 7–12 co-designed safety mechanisms for an online platform, demonstrating that children are both capable of and benefit from being treated as designers of their own safety rather than merely its subjects; this finding directly supports PowerUP’s core premise that children should author the safety content instead of only receiving it.

## 2.4 The Teacher's Role: Facilitator and Assembler, Not Author

Across both age modalities used in the project, the child remains the creative decision-maker. The teacher’s role is to facilitate, asking questions, offering structure, and, for the younger age group, acting as the technical hand that assembles what the child has authored. At no point does the teacher rewrite a child’s story to make it neater, safer-sounding, or more didactic; doing so would defeat the pedagogical purpose. The two modalities through which this plays out are detailed in Chapter 4.

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<sup>6</sup> Zhang, Z., Song, Q., Hernandez, R. H. L., Liu, Y., Kounig, E., Yu, J., Bai, S., Kou, Y., & Gui, X. (2026). Player safety by design: Co-designing child-centered safety mechanisms with children. In *Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems* (CHI '26). Association for Computing Machinery.

### 3. Organising the Co-Design Process in the Classroom



This chapter sets out a practical format for coordinating the piloting activities in class: how many sessions to plan, how to group children, who does what, what to have ready, and how to handle sensitive moments if they arise. The structure below mirrors the two-day Portugal training but is spread across several shorter classroom sessions, since most schools cannot dedicate two consecutive full days to the activity.

#### 3.1 Suggested Timeline

Six sessions over two to four weeks is a workable default. Sessions can be compressed or spread out further depending on the school timetable; what matters is preserving the sequence, since each session builds directly on the material produced in the one before it.

| Session | Focus                                     | Suggested length <sup>7</sup> | What happens                                                                                                                                                                                                                                                                                 |
|---------|-------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | <b>Digital reality &amp; topic choice</b> | 45–60 min                     | Whole class discussion of children's own online experiences; introduce the suggested online safety topic areas; each child or small group selects a topic.                                                                                                                                   |
| 2       | <b>Game card creation</b>                 | 60–90 min                     | Children complete both parts of their Game Card: Part A – Game Concept, defining the topic, characters, opening situation, decision point, two outcomes and take-away message; and Part B – Game Script, expanding the concept into dialogue and narration. Ends with a short peer exchange. |
| 3       | <b>First contact with the tool</b>        | 60–90 min                     | Ages 11–13: first scene built in TyranoBuilder. Ages 8–10: characters drawn and Scene 1 written on the card, teacher/peer begins digital assembly.                                                                                                                                           |
| 4       | <b>Branching &amp; consequences</b>       | 60–90 min                     | The decision point becomes a playable branch (diamond or full-tree); consequence scenes are                                                                                                                                                                                                  |

<sup>7</sup> This is a suggestion; teachers should adapt the time to their students' profiles.

| Session | Focus                                         | Suggested length <sup>7</sup> | What happens                                                                                                              |
|---------|-----------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------|
|         |                                               |                               | written across the three layers (immediate, emotional, later).                                                            |
| 5       | <b>Visual, audio &amp; polish</b>             | 60–90 min                     | Backgrounds, character expressions, music mood, and testing every route for dead ends or mismatches.                      |
| 6       | <b>Peer review, evaluation &amp; feedback</b> | 45–60 min                     | Games are peer-reviewed using the evaluation indicators (Chapter 8); children complete the short feedback form (Annex F). |

For the 8–10 age group, sessions 3–5 typically take longer per step, since the teacher or an older peer is doing the digital assembly work while the child directs it; plan extra time rather than compressing the child's decision-making.

### 3.2 Group Composition

- **Ages 11–13 (TyranoBuilder):** one child per device where possible. If devices are limited, pairs can share a station, but each child should author their own game card individually before pairing up to build.
- **Ages 8–10 (illustrated game cards):** the child takes on the role of “Game Director,” making the key decisions as their card is being created. The teacher supports the process by encouraging the student to contribute drawings, dialogue ideas, and music mood suggestions, helping them shape the card through their own creative choices.
- **Cross-pairing:** where the class is large enough, mixing children across friendship groups for the peer-review session (Session 6) tends to produce more honest, less socially-loaded feedback than review within existing pairs.

### 3.3 Roles: Teacher vs. Children

|                              | <b>Ages 11–13 · TyranoBuilder</b> | <b>Ages 8–10 · Illustrated cards</b> |
|------------------------------|-----------------------------------|--------------------------------------|
| <b>Who authors the story</b> | The child                         | The child                            |

|                              | <b>Ages 11–13 · TyranoBuilder</b>                    | <b>Ages 8–10 · Illustrated cards</b>                                                  |
|------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Who operates the tool</b> | The child, with teacher support for technical issues | The teacher or an assigned peer, following the child's exact instructions and wording |
| <b>Teacher's core task</b>   | Facilitate, troubleshoot, ask narrative questions    | Assemble faithfully, ask narrative questions, never rewrite the child's words         |
| <b>Risk to avoid</b>         | Teacher taking over the build to save time           | Teacher "tidying up" the story to sound more like a lesson                            |

### 3.4 Materials Checklist

- ☐ Printed Game Card template – Part A - Game Concept (Annex A) – one per child or per group
- ☐ Printed Game Card template – Part B - Game Script (Annex B) – one per finished card
- ☐ Devices with TyranoBuilder installed, for the 11-13 age group
- ☐ Drawing materials (paper, pencils, colours) for the 8-10 age group
- ☐ Printed TyranoBuilder icon reference sheet (Annex D), where the classroom language is not English
- ☐ Printed evaluation rubric, child-friendly version (Chapter 8 / Annex C)
- ☐ Printed children's feedback form (Annex F) – one per child, for the final session
- ☐ Any parental consent or authorisation forms required by the school or organisation
- ☐ A quiet, private space available if a sensitive conversation needs to happen away from the group.

### 3.5 Managing Discussions on Sensitive Topics

Game cards can occasionally surface something closer to a real experience than a fictional scenario. The full guidance on recognising this and responding is set out in Chapter 5 (Narrative Design Principles); the practical rule for classroom organisation is simple: the creative session is not the place to investigate. If a card raises concern, note it calmly, do not draw attention to it in front of the group, and follow your school's established safeguarding process afterwards. Having a quiet space and a clear point of contact identified before the session starts (see checklist above) makes this much easier to act on smoothly if it is needed.

### 3.6 Facilitation Tips

- Start simple. A three-scene game that works is worth more than an ambitious one that doesn't.
- Keep the first prototype small; children can always add content once the basic branch works.
- Circulate actively during independent work rather than waiting for children to ask for help.
- Protect Session 2 (game card creation) from time pressure – a rushed card produces a weak game, however well the tool is used afterwards.
- Revisit the four facilitation techniques from Chapter 5 (Perspective Swap, What Next?, The Quiet Player, Is It Fair?) whenever a child or group gets stuck.

## 4. The Two Modalities

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PowerUP uses two age-adapted modalities so that the full 8-13 age range can take part as authors of their own game, without reducing younger children's creative ownership to make the tool accessible.

### 4.1 Ages 11-13 – TyranoBuilder

- Children operate the tool themselves on shared school devices with TyranoBuilder installed.
- Interactive narrative with branching choices built directly from the child's own game card.
- Children can import their own drawn characters (including artwork created in Canva).
- Children select background music by mood.
- The result is an exportable, shareable playable game.

### 4.2 Ages 8-10 – Illustrated Game Cards

- Children are the authors; the teacher or an older peer is the technical hand.
- Children draw characters and write the dialogue and choices in their own words.
- Children select the music mood from a printed list.
- The child's exact wording is preserved digitally when the card is assembled, this is the single most important safeguard of authorship in this modality.

### 4.3 Same Pedagogy, Different Tools

In both modalities, children provide the words, ideas, choices and creative direction; the teacher facilitates authorship without taking the story away from the child. Game creation is inclusive because children can communicate through several channels – dialogue and short written choices, drawing and visual design, music mood, and non-verbal or quieter contributions – which supports children with different language confidence levels and learning differences.

### 4.4 Worked Example – CyberQuest: The Adventures of Alex

CyberQuest: The Adventures of Alex is a worked example – used during the Portugal training to learn the TyranoBuilder build process – that teachers can use to introduce the game-design process before children create their own stories. In the example, Alex receives a friend request from an unfamiliar contact, CoolGamer99, who begins asking

increasingly personal questions. The branch offers three responses (accept and share, decline and tell a parent, accept without sharing details); the “correct” branch does not simply reward the safe choice with a badge, it also lets the player feel proud rather than lectured. This example is a useful reference case for teachers preparing their own classroom demonstration and can be recreated as a shared class example before children build their own individual cards.

## 5. Narrative Design Principles

### 5.1 Message vs. Story

A rule stated directly – “don’t talk to strangers online” – is not a story: it is abstract, has no character to care about, offers no agency, and carries no real consequence. A safety story, by contrast, is character-driven, gives the player a genuine choice between plausible options, and lets each choice lead somewhere real. The shift teachers are asking children to make is from “tell them the rule” to “help them build a situation where the rule becomes meaningful”.



**A RULE IS NOT YET A STORY**

**A SAFETY MESSAGE**

**Don't talk to stranger online**

- **Rule-based** — abstract, no context
- **No character** — nobody to care about
- **No agency** — the child just receives
- **No consequence** — nothing at stake
- **Tells** — the child what to think

**A SAFETY STORY**

**Mia gets a friend request from someone she's never met. They seem kind, but something feels off. What should she do?**

- **Character-driven** — Mia feels real, we care
- **Genuine agency** — the player makes the choice
- **Plausible options** — no obviously wrong answer
- **Consequence** — each path leads somewhere real
- **Invites** — the child to think for themselves

### 5.2 The Five Narrative Principles

| Principle                       | What it means in practice                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Agency &amp; Consequence</b> | Both choices must feel plausible. Each must lead somewhere real. If one option is obviously wrong, the player has no real agency — rethink the choice. |
| <b>Emotional Authenticity</b>   | Children's own language and concerns produce better games than adult-scripted content. The teacher is a facilitator, not the author.                   |

| Principle                        | What it means in practice                                                                                                                               |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inclusive Characters</b>      | Avoid defaulting to stereotyped protagonists. Reflect the diversity of the classroom. Every child should be able to see themselves in the story.        |
| <b>Age-Appropriate Scope</b>     | Ages 8–10: a three-scene card with drawn choices. Ages 11–13: a fuller branching narrative. Scope matches the tool and the child's developmental stage. |
| <b>Message Without Preaching</b> | The safety message should emerge from the story, not be stated. If the game feels like a lecture, rework the decision point.                            |

### 5.3 Facilitation Techniques

When a child or group gets stuck on a scene, the following four facilitation techniques can help move the creative process forward:

| Technique               | How to use it                                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Perspective Swap</b> | Ask the child to retell the same incident from the victim's, a bystander's, and the person-causing-harm's point of view.             |
| <b>What Next?</b>       | Prompt children to extend the consequence beyond the immediate moment — collaborative story extension, one decision point at a time. |
| <b>The Quiet Player</b> | Drawing and written prompts for children who prefer not to speak up in group discussion.                                             |
| <b>Is It Fair?</b>      | A simple reflective question that helps children test whether both choice options have been treated with equal care.                 |

### 5.4 Worked Example — Mia's Story

This worked example follows Mia, who notices that nobody has replied to a classmate's message in the group chat for two days. The decision point — reply warmly and include him or stay quiet to avoid making a big deal of it — was chosen deliberately because both options are things a real child might plausibly do. Outcome B is written as a consequence, not a punishment: nothing dramatic happens, but Lucas sits alone at lunch, and Mia knows she could have said something.

This example is useful for teachers to talk through with the whole class before children draft their own cards, as it demonstrates emotional authenticity without moralising.

## 5.5 Handling Sensitive Content – Safeguarding Note

This is a brief note on the game-specific context; teachers and facilitators are expected to already know and follow their school's safeguarding obligations. Game cards can occasionally surface something that reads as a real experience rather than an invented scenario. The purpose of the creative session is not to investigate this; it is to notice it calmly and hand it to the right process afterwards. Signals worth noticing include:



- A game card that maps too precisely onto a named person in the school
- A character who shares the child's name, appearance, or home situation
- An 'outcome' that describes something that's already happened
- A story the child returns to repeatedly with increasing distress
- A child who becomes unusually quiet or withdrawn after the session

If something like this comes up, respond calmly in the moment, avoid drawing group attention to it, and follow your school's designated safeguarding process. See Chapter 3, Section 3.5 for how to prepare for this practically before a session begins.

## 6. The Design Process, Step by Step



This chapter walks through the sequence children follow from a blank game card to a playable branch, matching the flow used in the Portugal training and reflected in the templates in Annexes A and B.

The game-design process guides children from their first idea to a complete Game Card. Children first develop the structure of their game through Part A – Game Concept and then expand it into Part B – Game Script, creating the material needed for the subsequent video-game development phase.

### 6.1 Step 1 – Choose a Topic

Children can choose from a range of online safety topics, including Cyberbullying, Misinformation and Fake News, Online Privacy, Online Kindness, Hate Speech, Grooming Risks, etc. Teachers may introduce additional topics when they are relevant to children's experiences or to the local school context. One concrete issue that children recognise from their own digital lives will usually produce a stronger game than a broad, generic “internet dangers” premise.



## STEP 1 - CHOOSE YOUR TOPIC

|                                                                                                                                                                                                   |                                                                                                                                                                                                  |                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Cyberbullying</b> <p>What does it feel like to be the bystander, the one who sees it but says nothing?</p> |  <b>Fake News</b> <p>What makes someone share something they have not checked?<br/>What is at stake?</p>      |  <b>Online Privacy</b> <p>What does a child give up when they share a photo publicly without thinking?</p> |
|  <b>Online Kindness</b> <p>What does a small act of kindness cost and what can it change?</p>                  |  <b>Hate Speech</b> <p>What do you do when a comment is hurtful but the person posting it is your friend?</p> |  <b>Grooming Risks</b> <p>How do you know when an online friendship is starting to feel wrong?</p>         |

## 6.2 Step 2 – Create the Characters

Two to three named characters, each with one concrete distinguishing trait, is enough. A name creates immediacy; a detail (new to the school, quiet in class, loves football) is enough to build empathy. Giving the antagonist depth – lonely, scared, imitating older siblings – teaches more than a flat villain.

## 6.3 Step 3 – Write Scene 1

Scene 1 should answer four questions: who is the protagonist and where are they, what platform or digital space are they in, what has just happened or is about to happen, and what is at stake for them emotionally. Concrete and specific beats vague every time, a named platform and a real type of interaction, not a generic setup.

## 6.4 Step 4 – Create the Decision Point

The test for a good decision point: both options feel real and plausible, a child who cares would hesitate before choosing, and neither option is obviously “right.” If one option is clearly bad or silly, or the correct choice is effectively pre-labelled, the decision point needs to be rewritten.

## 6.5 Step 5 – Write the Outcomes

A good outcome captures the emotional consequence, not just the practical one, across three layers: what changes immediately, how the character feels, and what shifts later, even in a small way. Outcome B is not a punishment; it is a consequence; the goal is understanding, not fear.

## 6.6 Step 6 – Identify the Take-Away Message

Once both outcomes are clear, invite children to think about what they would like players to understand or remember after playing the game. The take-away message should emerge naturally from the choices and consequences already developed rather than turning the story into a lesson or telling the player what to think.

Ask two simple questions:

- What is the main message of your game?
- What is a positive or safe way to deal with this situation?

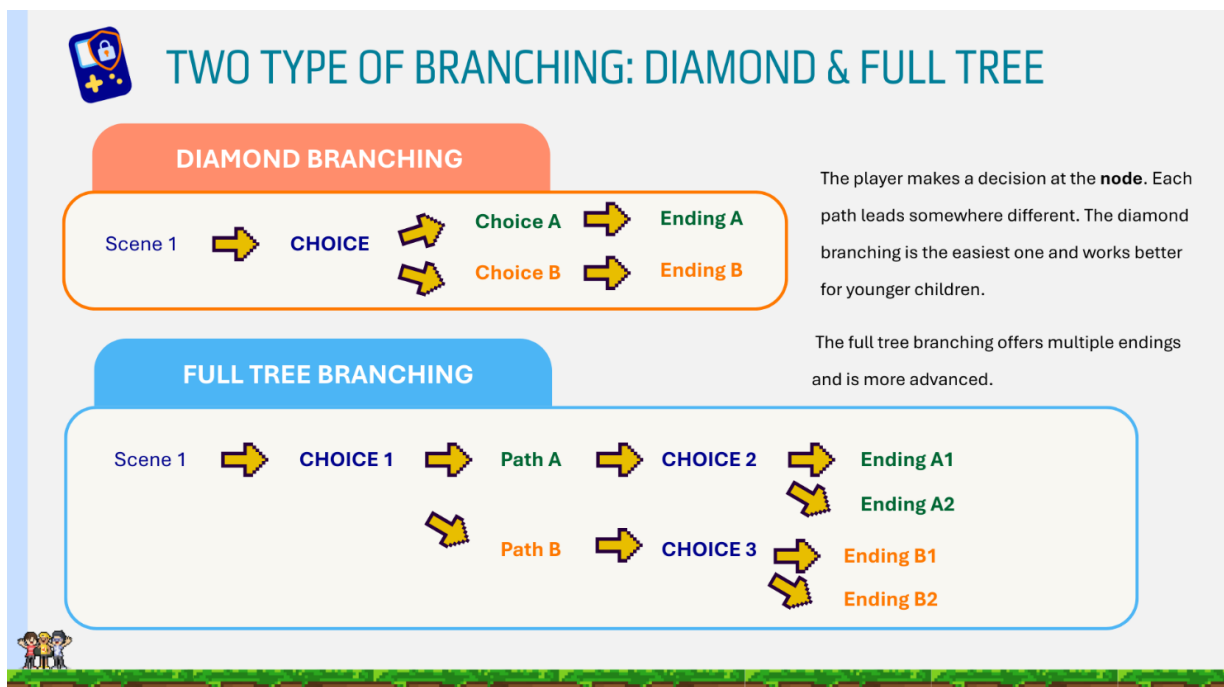
The answer may involve asking for help, checking information, setting a boundary, supporting another person, reporting harmful content, protecting personal information, or another strategy relevant to the situation. There does not need to be one single “correct”

solution: the goal is to help children identify constructive and realistic ways of responding to online risks.

## 6.7 From Game Concept to Game Script

Once Part A – Game Concept is complete, children move to Part B – Game Script. The Part B – Game Script template (Annex B) is used to write out the actual dialogue and narration for each scene, ready to be typed or assembled into TyranoBuilder. Story first, then tool: the branch should not be built in the software until the choice is meaningful on paper.

## 6.8 Branching Structure: Diamond vs. Full Tree



- **Diamond branching** – one choice point, two paths, one shared ending. The easiest structure and the recommended starting point, especially for the 8–10 age group.
- **Full tree branching** – multiple choice points and multiple endings. An advanced option for ambitious participants once the diamond structure is working end to end.

In TyranoBuilder, branching is built from four components working together: a Branch Button (the clickable choice), a Stop (which pauses the game so the choice can be made, always placed after the last Branch Button), a Label (a named destination a button or Jump can target), and a Jump (which moves the story to a Label, most often used to reconnect branches back to a shared route).

## 6.9 Common Errors to Catch Early

Most branching problems are far easier to fix while the story map is still visible on paper than once they are buried inside the tool.

| Error                                 | What it looks like                                                                                                  | Fix                                                                                                               |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Dead end</b>                       | No route forward or no ending                                                                                       | Check every branch reaches a Jump or a proper close                                                               |
| <b>Wrong button target</b>            | Choice opens the wrong scene                                                                                        | Re-check each Branch Button's Target setting                                                                      |
| <b>Unbalanced branches</b>            | One path has much more care than the other                                                                          | Give both outcomes equal narrative weight                                                                         |
| <b>Preachy outcome</b>                | The ending tells instead of shows                                                                                   | Rewrite as a consequence, not a verdict                                                                           |
| <b>Too much text</b>                  | Player cannot process the scene                                                                                     | Shorten; split across more Text components                                                                        |
| <b>Part A and Part B do not match</b> | The script introduces different characters, choices, outcomes or messages from those developed in the Game Concept. | Use Part A as the reference and make sure Part B expands the same game idea rather than creating a different one. |

## 6.10 Worked Example – CyberQuest, Chapter 1

The complete CyberQuest worked example follows Alex as he receives a friend request from CoolGamer99. It demonstrates the full design process from beginning to end: a concrete opening situation (Scene 1), a decision point in which both options are plausible, outcomes that differ both practically and emotionally, and a clear online-safety take-away. Teachers can walk a class through this example before children begin drafting their own game cards.

## 7. Principles of Inclusive Design

Inclusive design in PowerUP does not mean adding every possible representation to every game; it means designing characters and process with respect and specificity, so that any child in the classroom can recognise themselves somewhere in the activity.

### 7.1 Inclusive Characters

- Give characters names, interests and choices, not labels.
- Avoid making one group always the victim or always the problem.
- Include bystanders and helpers, not only the person harmed.
- Ask: would a child in your class recognise this character as real and age-appropriate?
- Flip expectations deliberately: a quiet child can be the brave one; a popular child can be the one who makes the worst choice.

### 7.2 Multiple Pathways to Contribute

Game creation is inclusive because children can communicate through several channels, not only spoken explanation: dialogue and short written choices, drawings and visual design, music, mood and atmosphere, and non-verbal or quieter contributions through the Quiet Player technique (Chapter 5). This supports children with different language confidence levels and learning differences without singling anyone out.

### 7.3 Gender-Sensitive Design

The needs-analysis survey conducted in the project partners' countries with 103 children aged 8-13 highlighted that children may experience online spaces and online risks differently depending on gender. Indeed, almost 70% of children believe online experiences differ by gender, with girls reporting more uncomfortable social interactions and boys reporting more exposure to scary content, a finding consistent with EU Kids Online (2020) research on gender-differentiated risk exposure.

These differences should be considered when children create characters, situations and responses to online risks.

Teachers should encourage a balanced and diverse representation of protagonists across the class, without assigning particular behaviours, risks or roles to one gender. Children should also be encouraged to challenge common stereotypes: for example, girls should not systematically appear as victims or helpers, and boys should not systematically appear as risk-takers, aggressors or technical experts.

Gender-sensitive design does not mean imposing particular characters on children's stories. It means helping children notice stereotypes, question them and create characters whose personalities, strengths, vulnerabilities and choices are not determined by gender.

## 7.4 Accessibility

- Use readable font sizes and sufficient contrast in any on-screen text.
- Avoid flashing effects or rapid scene transitions.
- For non-English-speaking groups, rely on the colour-coded, icon-based navigation of TyranoBuilder (Annex D) rather than requiring English text literacy.
- Keep menu and choice text short, in the child's own words rather than adult language.

## 8. Co-Created Evaluation Indicators

The PowerUP evaluation framework was developed with input from teachers, educators and children. The same criteria are used both to guide children during the design process and to review completed games. This helps make evaluation part of the learning process rather than something applied only after the game has been finished. Each game receives two independent scores, displayed side by side: a jury score and a player score, built on the same five dimensions so the two are directly comparable.

### 8.1 The Five Dimensions

| Dimension            | Icon                                                                                | Guiding question                                                                 |
|----------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Gameplay & Design    |    | Does the game work and engage? Are player choices meaningful?                    |
| Story & Message      |    | Is the online safety message woven naturally into the story, or stated directly? |
| World & Characters   |  | Are characters diverse, relatable, and free of harmful stereotypes?              |
| Safety & Ethics      |  | Is the content fully safe, respectful, and appropriate for children?             |
| Originality & Effort |  | Does the game have a distinct creative voice?                                    |

### 8.2 Jury Score vs. Player Score

Two cross-partner reviewers evaluate each game independently on a 20-point scale per dimension (100 points total); the final jury score is the average of both. Each reviewer also writes a short two-to-three-sentence note, not just a number. Any child on the platform can leave a player score using a simpler four-point emoji scale per dimension, converted to the same 100-point total, so a jury score and a player score always speak the same language. A player score badge only appears once a game has received at least five ratings, and children cannot rate games from their own school.

### 8.3 Shared Score Bands

| Score    | Rating        | What it means                                       |
|----------|---------------|-----------------------------------------------------|
| 90 – 100 | ★ Masterpiece | Sets the standard for the whole platform            |
| 75 – 89  | 🔥 Essential   | Outstanding work, highly recommended for classrooms |
| 60 – 74  | 👍 Good        | Solid, published, and worth playing                 |
| 45 – 59  | 🔧 Needs Work  | Published with teacher notes; shows real potential  |
| 0 – 44   | 🚧 Not Yet     | Requires revision before publication                |

### 8.4 The Safety & Ethics Floor

A game scoring below 9 out of 20 on Safety & Ethics should not be shared or published in its current form, regardless of its scores in other categories. Children should receive constructive feedback and the opportunity to revise the game before it is shared more widely. This minimum threshold ensures that strong gameplay or creativity can never compensate for content that is unsafe, discriminatory or inappropriate for children.

### 8.5 How Children Co-Create the Evaluation

Children are not only evaluated; they also take part in evaluation. During the classroom peer-review session, children use the same five dimensions in simple, age-appropriate language: Was it fun to play? Did you learn something? Did everyone feel welcome? Did it feel safe and kind? Did it feel like their game?

Their feedback helps test whether the evaluation criteria make sense from a child's perspective and gives young participants an active role in deciding what makes a successful PowerUP game. This makes evaluation part of the co-design process rather than a set of adult-defined criteria applied only to children's work.

## 9. From Classroom to Platform: Facilitator Checklist

A practical, three-phase checklist for the supported creation lab (Chapter 3, Sessions 3–5), plus a short section on capturing children's own feedback at the end of the process.

### 9.1 Phase 1 – Narrative Structure (45 - 60 minutes)

- ☐ All scenes roughed in, from Scene 1 through to the ending(s)
- ☐ All branches connected – no dead ends
- ☐ Decision point genuinely makes the player hesitate
- ☐ Both outcomes read as consequences, not verdicts
- ☐ Each Game Card includes both Part A – Game Concept and Part B – Game Script

### 9.2 Phase 2 – Visual & Audio Completion (~60 minutes)

- ☐ Backgrounds added for every scene
- ☐ Character sprites and expressions imported
- ☐ Background music selected by mood
- ☐ Text is readable: font size, contrast, not overcrowded

### 9.3 Phase 3 – Polish & Testing (~45 minutes)

- ☐ Every branch played through at least once
- ☐ No branch button opens the wrong scene
- ☐ Every branch reconnects (Jump to Common) or ends properly
- ☐ Typos and missing text corrected
- ☐ Saved and previewed successfully

### 9.4 Children's Feedback

Once the peer-review session (Chapter 3, Session 6) is complete, give every child five minutes to fill in the short feedback form in Annex F. This is deliberately separate from the evaluation rubric in Chapter 8: the rubric scores the games; this form asks children about their own experience of making one. Children's feedback is essential for understanding how the methodology works in practice. It helps educators identify which parts of the activity children found engaging, where they encountered difficulties, whether they felt listened to, and whether they experienced genuine ownership of their game. Feedback collected across participating classrooms can then be used to improve the methodology and make future versions of the resources easier to use in different educational contexts.

- ☐ Every child has completed a feedback form before leaving the final session
- ☐ Forms are kept together with the class's finished game cards
- ☐ A short summary of common themes is shared with the team responsible for reviewing and improving the methodology and replication resources.

---

## 10. Conclusion

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This guide sets out the format, structure and methodology for coordinating child-led video game design as an online safety education activity, translating the pedagogy tested during the Portugal training into a process that any teacher across the PowerUP partnership can follow in their own classroom.

Three commitments run through every chapter of this guide. First, the child is always the author: whichever modality is used, the teacher facilitates and, where necessary, assembles – but never rewrites – a child's story. Second, safety messages work best when they are earned by the player through a genuine choice and a felt consequence, not stated as a rule. Third, evaluation in PowerUP is something children participate in, not only something done to their work, the same five-dimension framework is used by cross-partner juries and by the children themselves.

This methodology is designed to travel. The classroom organisation, step-by-step design process and facilitator checklist can all be adapted to different school contexts, timetables and groups of children while preserving the core principles of child authorship, meaningful choice, safety and inclusion. Feedback from children and educators using the methodology will be used to refine the activities.

## Annex A – Game Card Template: Part A - Game Concept (Quick Reference)

Part A – Game Concept helps children define the core structure of their game: the online safety topic, characters, opening situation, decision point, options, outcomes, take-away message and visual setting. It forms the first part of the complete Game Card and should be completed before moving to Part B – Game Script.

The full printable Part A – Game Concept template is also available as a standalone classroom resource. The quick reference below summarises its structure for use alongside this guide.

| Field                 | What to fill in                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Topic                 | e.g. Cyberbullying · Misinformation/Fake News · Online Privacy · Online Kindness · Hate Speech · Online Grooming · Online Wellbeing/Mental Health |
| Age group             | 8–10 or 11–13                                                                                                                                     |
| Characters (2–3)      | Name · role in the story · one concrete detail each                                                                                               |
| Scene 1               | Opening situation – who is the protagonist, where are they, what has just happened                                                                |
| Decision point        | Option A / Option B – both must feel plausible                                                                                                    |
| Outcome A / Outcome B | What happens immediately, and how the character feels at the end (mood)                                                                           |
| Visual design         | Backgrounds needed for the story                                                                                                                  |
| Take-away message     | What should players understand or remember? What is a positive or safe way to deal with this situation?                                           |



# GAME CARD



Game name:

Age group: ☐ 8-10 years old ☐ 11-13 years old

**TOPIC**
*e.g. Cyberbullying · Privacy · Fake News · Online Kindness · Hate Speech*

## CHARACTERS

Name · concrete detail each (2–3 characters)

**Character 1**

Name: ..... Role in the story: .....

Details about the character:

.....

.....

.....

.....

.....

.....

**Character 2**

Name: ..... Role in the story: .....

Details about the character:

.....

.....

.....

.....

.....

.....



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# GAME CARD



## Character 3

Name: ..... Role in the story: .....

Details about the character:

.....

.....

.....

.....

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.....

## SCENE 1

Opening situation — who is the protagonist? Where are they? What has just happened?

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# GAME CARD



**DECISION POINT**

Question (optional):

OPTION A

What is the first choice the player could make?

.....

.....

.....

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.....

OPTION B

What is the second choice the player could make?

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**OUTCOMES**

OUTCOME A

What happens immediately?  
How does the character feel at the end?  
What can the character do next?

.....

.....

.....

.....

.....

.....

.....

.....

MOOD

.....

.....

OUTCOME B

What happens immediately?  
How does the character feel at the end?  
What can the character do next?

.....

.....

.....

.....

.....

.....

.....

.....

MOOD

.....

.....



# GAME CARD



## VISUAL DESIGN

What backgrounds will you need for your story? A bedroom, a schoolroom, etc.

## TAKE-AWAY MESSAGE

What is the main message of the game?  
What is a positive or safe way to deal with this situation?



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## Annex B – Game Card Template: Part B - Game Script (Quick Reference)

---

Used once Part A – Game Concept is complete to turn the card's structure into written dialogue and narration ready for TyranoBuilder.

Part B – Game Script expands the concept developed in Part A into the dialogue and narration needed for video-game creation. Children should complete it using their Game Concept as a reference, keeping the same characters, choices, outcomes and take-away message. Part A and Part B together form one complete Game Card.

The full printable Part B - Game Script template is also available as a standalone classroom resource.

- Scene 1 – Script: full dialogue and narration for the opening scene
- Decision Point – Option A and Option B, written exactly as they will appear on the branch buttons
- Outcome A – Script: full dialogue and narration for this branch
- Outcome B – Script: full dialogue and narration for this branch
- Take-Away Message – the main idea, insight or positive strategy that players should understand or remember after completing the game.





# GAME CARD



**DECISION POINT**

Question (optional):

OPTION A

OPTION B

**OUTCOMES**

OUTCOME A



## Annex C – Evaluation Rubric

The full jury and player scoring system is detailed in Chapter 8. This annex reproduces the child-facing player questions in full for printing.

| Question                     | 4 points                                                                                               | 3 points                                                                                                 | 2 points                                                                                              | 1 point                                                                                                  |
|------------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Was it fun to play?          |  Couldn't stop        |  Enjoyed it             |  It was okay         |  Got bored            |
| Did you learn something?     |  Really made me think |  Yes, I think so        |  Maybe a little      |  Not really           |
| Did everyone feel welcome?   |  Absolutely           |  Yes, mostly            |  Sort of             |  Didn't feel like it  |
| Did it feel safe and kind?   |  Completely           |  Yes, mostly            |  A bit uncomfortable |  Something felt wrong |
| Did it feel like their game? |  Totally unique     |  Some original touches |  A bit generic     |  Very generic       |



# PowerUP

## Game Review & Rating System

*A complete guide for jury reviewers and players*

### HOW THE SCORING WORKS

Every game on the PowerUP platform receives two independent scores, displayed side by side — just like a critic score and an audience score on a review website. Both scores are built on the same five dimensions, so they can be directly compared.

| Dimension                          | Jury Category (out of 20)             | Player Question                                                                                                   |
|------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1. <b>Gameplay &amp; Design</b>    | Does the game work and engage?        |  Was it fun to play?            |
| 2. <b>Story &amp; Message</b>      | Is the safety message clear?          |  Did you learn something?      |
| 3. <b>World &amp; Characters</b>   | Are characters diverse and inclusive? |  Did everyone feel welcome?   |
| 4. <b>Safety &amp; Ethics</b>      | Is the content safe for all children? |  Did it feel safe and kind?   |
| 5. <b>Originality &amp; Effort</b> | Does the game have a creative voice?  |  Did it feel like their game? |

Each dimension is scored out of 20 by the jury, giving a jury total out of 100. Players score each dimension from 1 to 4, which is then converted to a score out of 20 using the same scale. The result: both scores speak the same language.

### SHARED SCORE BANDS

The same five rating labels apply to both the jury score and the player score. The same colour means the same verdict, whoever is scoring.

| Score    | Rating               | What it means                                         |
|----------|----------------------|-------------------------------------------------------|
| 90 – 100 | ★ <b>MASTERPIECE</b> | A game that sets the standard for the whole platform. |
| 75 – 89  | 💧 <b>ESSENTIAL</b>   | Outstanding work — highly recommended for classrooms. |
| 60 – 74  | 👍 <b>GOOD</b>        | Solid, published, and worth playing.                  |
| 45 – 59  | 🔧 <b>NEEDS WORK</b>  | Published with teacher notes. Shows real potential.   |
| 0 – 44   | 🚫 <b>NOT YET</b>     | Requires revision before publication.                 |

*When jury and player scores differ by 15 points or more, the game page displays a special tag: "Players and jury see this one differently — check the breakdown to find out why." This turns disagreement into a learning moment.*

## PART 1 — JURY SCORE

Two cross-partner reviewers evaluate each game independently. Final score is the average of both evaluations. Each reviewer also writes a short 2 to 3 sentence note for the team — not just a number, but real feedback.

Total: 5 categories × 20 points = 100 points

### 1. Gameplay & Design — / 20

*Does the game actually work as a game?*

| Points  | Level      | What reviewers look for                                                                                 |
|---------|------------|---------------------------------------------------------------------------------------------------------|
| 17 – 20 | Excellent  | Clear rules, engaging mechanics, satisfying progression. Player choices feel meaningful and purposeful. |
| 13 – 16 | Good       | Mostly functional with some rough edges. The game loop is understandable and the player can progress.   |
| 9 – 12  | Fair       | Playable but confusing or repetitive. Limited interactivity or unclear objectives.                      |
| 0 – 8   | Needs Work | Hard to play or understand without external explanation. Core mechanics are unclear or broken.          |

### 2. Story & Message — / 20

*Does the game say something worth saying, and say it clearly?*

| Points  | Level      | What reviewers look for                                                                                           |
|---------|------------|-------------------------------------------------------------------------------------------------------------------|
| 17 – 20 | Excellent  | The online safety message is woven naturally into the story. Players learn by playing, not by reading text walls. |
| 13 – 16 | Good       | The message is present and mostly clear, though sometimes told rather than shown through gameplay.                |
| 9 – 12  | Fair       | The theme is visible but feels disconnected from the gameplay itself.                                             |
| 0 – 8   | Needs Work | The message is hard to identify or contradicts safe and respectful values.                                        |

### 3. World & Characters — / 20

*Who lives in this game, and does everyone feel welcome?*

This category adapts to the game's chosen topic:

**If the game focuses on gender or identity online:** full points are available for nuanced representation, stereotype-free characters, and showing how different people experience digital spaces differently.

**If the game focuses on another topic (e.g. fake news, privacy):** points are awarded for diverse, relatable characters regardless of topic — varied backgrounds, no harmful stereotypes, inclusive language and visuals.

| Points  | Level     | What reviewers look for                                                                                        |
|---------|-----------|----------------------------------------------------------------------------------------------------------------|
| 17 – 20 | Excellent | Characters feel real and varied. Different backgrounds, abilities, or perspectives are represented positively. |

|         |            |                                                                                           |
|---------|------------|-------------------------------------------------------------------------------------------|
| 13 – 16 | Good       | Some diversity is present. No obvious stereotypes, though representation could be richer. |
| 9 – 12  | Fair       | Characters feel generic or one-dimensional. Little sense of a diverse world.              |
| 0 – 8   | Needs Work | Stereotypes are present, or all characters feel the same with no variation.               |

#### 4. Safety & Ethics — / 20

*Is this a game you would feel comfortable sharing with any child?*

| Points  | Level            | What reviewers look for                                                                                                                  |
|---------|------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 17 – 20 | <b>Excellent</b> | Content is fully safe, respectful, and empowering. No personal data exposed. Sensitive topics handled with care and age-appropriateness. |
| 13 – 16 | Good             | Safe overall with minor issues that are flagged and correctable before publication.                                                      |
| 9 – 12  | Fair             | Some content needs review before going public. Teacher or partner revision is required.                                                  |
| 0 – 8   | Needs Work       | Content is unsuitable for publication in its current form. Full revision required.                                                       |

*Note: A game scoring below 9 on Safety & Ethics cannot be published on the platform, regardless of other scores.*

#### 5. Originality & Effort — / 20

*Did this team make it their own?*

| Points  | Level            | What reviewers look for                                                                                                       |
|---------|------------------|-------------------------------------------------------------------------------------------------------------------------------|
| 17 – 20 | <b>Excellent</b> | The game has a distinct creative voice. You can tell a real team made real choices — in art style, story angle, or mechanics. |
| 13 – 16 | Good             | Solid effort with some original touches that go beyond the template provided.                                                 |
| 9 – 12  | Fair             | Follows the template closely with limited creative risk-taking or personal expression.                                        |
| 0 – 8   | Needs Work       | Minimal effort visible beyond the basic requirement. The template was used with little adaptation.                            |

## PART 2 — PLAYER SCORE

Any child who plays a game on the platform can leave a player score. It takes less than two minutes: five questions, four emoji choices each. A player score badge appears on the game page once at least five ratings have been submitted. Players cannot rate their own school's games.

Scoring: each answer is worth 1 to 4 points. Multiply the average answer by 5 to get a score out of 20 per dimension. Sum all five dimensions for a total out of 100 — exactly the same scale as the jury score.

### 1. 🧑 Was it fun to play?

"Did you want to keep playing, or did you get bored?"

| Score | Emoji | Your answer              |
|-------|-------|--------------------------|
| 4     | 😄     | I couldn't stop playing! |
| 3     | 😊     | I enjoyed it             |
| 2     | 😐     | It was okay              |
| 1     | 😞     | I got bored quickly      |

### 2. 💡 Did you learn something?

"Do you know something about being safe online that you didn't know before?"

| Score | Emoji | Your answer                   |
|-------|-------|-------------------------------|
| 4     | 💡     | Yes, it really made me think! |
| 3     | 👍     | Yes, I think so               |
| 2     | 😐     | Maybe a little                |
| 1     | 🙄     | Not really                    |

### 3. 🌈 Did everyone feel welcome in the game?

"Were the characters and story made for kids like you — and kids different from you too?"

| Score | Emoji | Your answer                               |
|-------|-------|-------------------------------------------|
| 4     | 🌈     | Absolutely — everyone would feel included |
| 3     | 😊     | Yes, mostly                               |
| 2     | 😐     | Sort of                                   |
| 1     | 😞     | It didn't feel like it                    |

### 4. 🛡️ Did it feel safe and kind?

"Did the game treat difficult topics in a way that felt okay for everyone?"

| Score | Emoji | Your answer                              |
|-------|-------|------------------------------------------|
| 4     | 🛡️    | Completely — it felt respectful and safe |
| 3     | 👍     | Yes, mostly                              |

|   |                                                                                   |                                     |
|---|-----------------------------------------------------------------------------------|-------------------------------------|
| 2 |  | Some parts felt a bit uncomfortable |
| 1 |  | No, something felt wrong            |

### 5. 🎮 Did it feel like their game?

"Could you tell a real team put their own ideas and personality into it?"

| Score | Emoji | Your answer                               |
|-------|-------|-------------------------------------------|
| 4     | 🎮     | Yes! It felt totally unique and creative  |
| 3     | 😊     | Yes, there were some original touches     |
| 2     | 😬     | A bit — but it felt like most other games |
| 1     | 😞     | Not really — it felt very generic         |

### Player Score Badges

The player score badge is the average of all five dimension scores, displayed on the game page alongside the jury score.

| Average score | Badge displayed on game page |
|---------------|------------------------------|
| 3.5 – 4.0     | 🎮 KIDS LOVE IT               |
| 2.5 – 3.4     | 🎮 WORTH PLAYING              |
| 1.5 – 2.4     | 🎮 MIXED FEELINGS             |
| 1.0 – 1.4     | 💬 NEEDS MORE PLAYERS         |

## PART 3 — HOW SCORES DISPLAY ON THE GAME PAGE

Every game on the platform shows both scores side by side in a breakdown panel. The layout below illustrates what players and teachers see when they visit a game page.

EXAMPLE GAME PAGE

**The Privacy Maze — by Class 4B, Vilela School**

JURY SCORE

# 78

👍 GOOD

PLAYER SCORE

# 91

💧 ESSENTIAL

| BREAKDOWN              | Jury | Players |
|------------------------|------|---------|
| 🎮 Gameplay & Design    | 16   | 18      |
| 💡 Story & Message      | 14   | 20      |
| 🌍 World & Characters   | 18   | 16      |
| 🛡️ Safety & Ethics     | 18   | 19      |
| 🌟 Originality & Effort | 12   | 18      |

💬 *Players and jury see this one differently — check the breakdown to find out why*

## PRACTICAL RULES FOR REVIEWERS AND PLAYERS

### Jury reviewers

Each game is evaluated by two reviewers from different partner schools. The final jury score is the average of both evaluations. Reviewers cannot score games created by children from their own school. Each reviewer writes a short note of two to three sentences alongside the score, giving the team real feedback to take away.

### Players

Any child on the platform can rate any game except those made by their own school. A player score badge only appears once a game has received at least five ratings, so no game is judged on a single vote. Each child can rate each game only once. Ratings can be submitted in any partner language — the emoji scale is the same across all of them.

### The Safety & Ethics floor

A game scoring below 9 out of 20 on Safety & Ethics from the jury cannot be published on the platform regardless of its scores in other categories. The team receives feedback and an opportunity to revise before resubmission.

### Player Quotes

After completing the five questions, players can optionally write one sentence about the game — like telling a friend what to expect. The best quotes, moderated by teachers, appear on the game page as Player Quotes, giving young reviewers a real sense that their voice matters.

PowerUP — Power Up Digital Citizens: Children Designing Video Games to Tackle Online Risks

CERV-2025-CHILD | Co-funded by the European Union

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## Annex D – TyranoBuilder Reference Table

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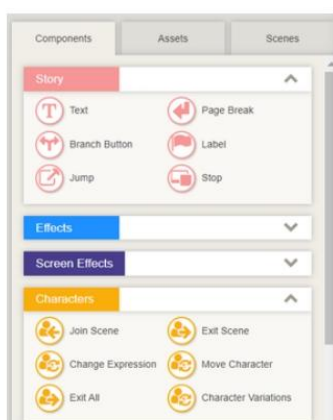
Because TyranoBuilder's interface is English-only, this reference table lets teachers and children in non-English-speaking classrooms navigate by colour and icon. Pair this table with the colour-coded categories shown in the TyranoBuilder User Guide.



# USER GUIDE

## 3 WINDOWS: COMPONENTS - ASSETS - SCENES

### COMPONENTS



#### What is it?

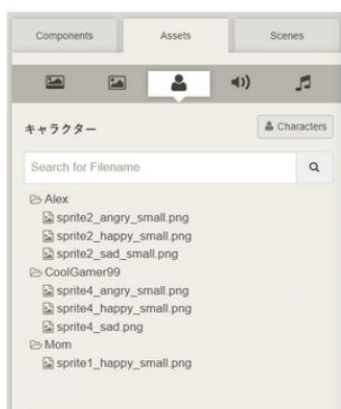
This is where you find all the **“building blocks” for your story**.

Components are little pieces you can drag into your game, like:

- **Story**: these components help you **write your story** and choosing where your player will go in the story.
- **Characters**: these components let you **place characters** on the screen and make them **appear, disappear, or change expressions**.
- **Images**: these components **add pictures** to your game, such as **backgrounds or objects** the player can see.
- **Messages**: these components **control how text is shown** to the player, like speech bubbles or message boxes.
- **Media**: these components let you **add sounds, music, and videos** to your game so it feels more alive and exciting.

Think of it like a big box of LEGO pieces. You pick the pieces you want and place them in your story.

### ASSETS



#### What is it?

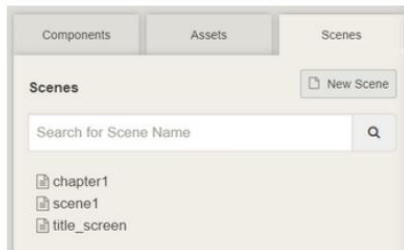
This is where **all your pictures, music, and sounds are stored**. Assets are the files you add to your project, such as:

- Character images
- Background pictures
- Music
- Sound effects

It's like your game's backpack. Everything you bring into your story lives here so you can use it whenever you need.



## SCENES



### What is it?

This shows **all the different parts (or “levels”) of your story**. Each scene is like a chapter in a book. You can:

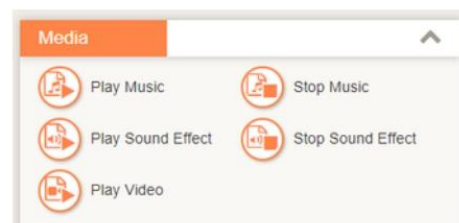
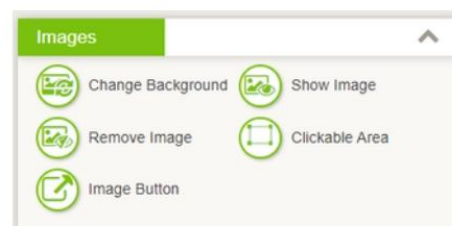
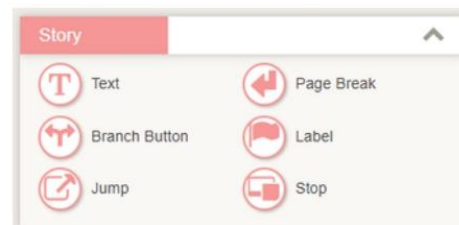
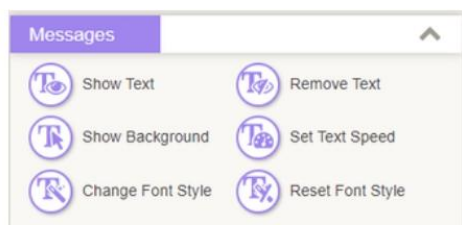
- Create new scenes
- Rename them
- Switch between them

If your story has different places or moments like “School,” “Forest,” or “Ending”, each one can be its own scene.

## THE DIFFERENT COMPONENTS

In TyranoBuilder, the Components window is divided into different categories, and each category has its own colour. These colours help you quickly see what type of component you’re using.

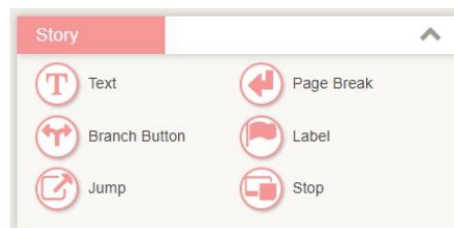
- **Story** components are in **pink**
- **Character** components are in **yellow**
- **Images** components are in **green**
- **Messages** components are in **purple**
- **Media** components are in **orange**



## THE DIFFERENT COMPONENTS

### STORY

These components help you **write your story** and choosing where your player will go in the story.



| ICONE                                                                               | TEXT          | WHAT IS IT                                                                           |
|-------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------------------------|
|  | Text          | This lets you write words that will appear on the screen for the player to read.     |
|  | Branch Button | This creates a choice the player can click, leading to different parts of the story. |
|  | Jump          | This sends the story to another part of your game right away.                        |
|  | Page Break    | This starts a new page so your text doesn't get too crowded.                         |
|  | Label         | This marks a spot in your story so you can jump back to it later.                    |
|  | Stop          | This makes the game pause until the player taps or clicks to continue.               |

## THE DIFFERENT COMPONENTS

### CHARACTER

These components let you **place characters** on the screen and make them **appear, disappear, or change expressions**.



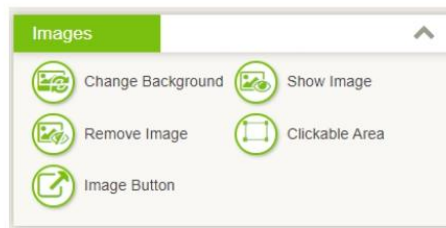
| ICONE                                                                               | TEXT                 | WHAT IS IT                                                                                                    |
|-------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------|
|  | Join Scene           | This makes a character appear on the screen.                                                                  |
|  | Exit Scene           | This makes a character leave the screen.                                                                      |
|  | Change Expression    | This switches the character's face or mood, like happy, sad, or surprised.                                    |
|  | Move Character       | This slides the character to a new spot on the screen.                                                        |
|  | Exit All             | This makes every character disappear from the scene at once.                                                  |
|  | Character variations | this lets you pick different looks or outfits for your character. (Only if you character has different looks) |



## THE DIFFERENT COMPONENTS

### IMAGES

These components **add pictures** to your game, such as **backgrounds or objects the player can see**.



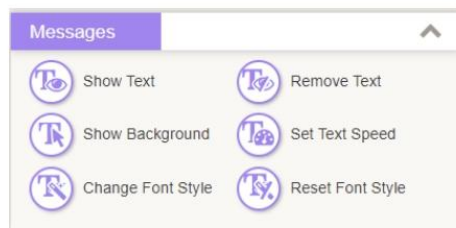
| ICONE                                                                               | TEXT              | WHAT IS IT                                                                     |
|-------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------|
|  | Change Background | This switches the picture behind your characters to show a new place.          |
|  | Show Image        | This puts a picture on the screen, like an item or decoration.                 |
|  | Remove Image      | This makes a picture you added disappear from the screen.                      |
|  | Clickable Area    | This creates a spot on the screen the player can tap to make something happen. |
|  | Image Button      | This shows a picture that works like a button the player can click.            |



## THE DIFFERENT COMPONENTS

### MESSAGES

These components **control how text is shown** to the player, like speech bubbles or message boxes.



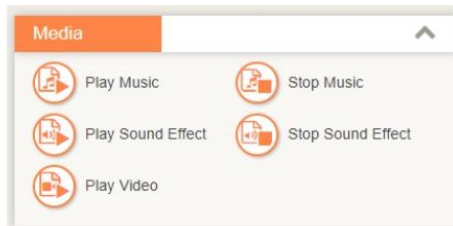
| ICONE                                                                               | TEXT              | WHAT IS IT                                                              |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------|
|  | Show Text         | This puts words on the screen so the player can read them.              |
|  | Remove Text       | This clears the text from the screen to make room for new words.        |
|  | Show Background   | This adds a box or color behind the text to make it easier to read.     |
|  | Set Text Speed    | This changes how fast the words appear, from super slow to super quick. |
|  | Change Font Style | This lets you change how the text looks, like making it bold or fancy.  |
|  | Reset Font Style  | This puts the text back to the normal style you started with.           |



## THE DIFFERENT COMPONENTS

### MEDIA

These components let you **add sounds, music, and videos** to your game so it feels more alive and exciting.



| ICONE                                                                               | TEXT              | WHAT IS IT                                                       |
|-------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------|
|  | Play Music        | This starts background music to make your scene feel more alive. |
|  | Stop Music        | This turns off the music that's currently playing.               |
|  | Play Sound Effect | This plays a short sound, like a door knock or a magic sparkle.  |
|  | Stop Sound Effect | This stops a sound effect if it's still playing.                 |
|  | Play Video        | This shows a video on the screen that the player can watch.      |



## Annex E – Facilitation Techniques Quick Reference

| Technique        | Prompt to use                                                     |
|------------------|-------------------------------------------------------------------|
| Perspective Swap | "How would that feel if you were the one watching?"               |
| What Next?       | "What is one thing that could happen next? Write just that."      |
| The Quiet Player | "Draw your character's face when they have to make their choice." |
| Is It Fair?      | "Would you say it was fair?"                                      |

**FOUR FACILITATIONS TECHNIQUES**



### Perspective Swap

Children retell the same online incident from three viewpoints: the victim, a bystander, and the person causing harm.

💬 "How would that feel if you were the one watching?"



### What Next?

Collaborative story extension. Each student adds one decision point to a shared story being built on the board.

💬 "What is one thing that could happen next? Write just that."



### The Quiet Player

Drawing and written prompts designed for children who don't speak up in group discussion, handed out individually.

💬 "Draw your character's face when they have to make their choice."



### Is It Fair?

A simple ethical frame for younger children: 'Would you say it was fair?' as the lens for evaluating any digital situation.

💬 "Draw your character's face when they have to make their choice."



## Annex F – Children's Feedback / Reflection Form

A short, child-friendly form to fill in after finishing the game-creation activity (Chapter 3, Session 6 / Chapter 9, Section 9.4). Written in the same spirit as the player evaluation scale in Chapter 8 – simple questions, four emoji-scale answers each – but focused on the child's own experience of making a game, not on scoring a finished one.

### My Game-Making Experience

Name (optional): \_\_\_\_\_ Age: \_\_\_\_\_

Topic I chose: \_\_\_\_\_

| Question                               | 4 points            | 3 points        | 2 points            | 1 point           |
|----------------------------------------|---------------------|-----------------|---------------------|-------------------|
| Did you enjoy making your game?        | 😍 Loved it          | 😊 Enjoyed it    | 😐 It was okay       | 😞 Didn't enjoy it |
| Did you feel it was your own story?    | ✨ Completely mine   | 😊 Mostly mine   | 😐 A little bit mine | 😞 Not really mine |
| Was it easy to share your ideas?       | 💬 Very easy         | 👍 Fairly easy   | 😐 A bit hard        | 😞 Very hard       |
| Did your teacher listen to your ideas? | 👤 Always            | 👍 Mostly        | 😐 Sometimes         | 😞 Rarely          |
| Would you like to make another game?   | ☀️ Yes, right away! | 😊 Yes, sometime | 😐 Maybe             | 😞 Not really      |

### In your own words

One thing I really liked about making my game:

-----

One thing that was hard or that I would change:

-----



**PowerUP**



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**Project: PowerUP - Power up digital citizens: children designing video games to tackle online risks (101252479)**

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