Gamification Toolkit

A Guide to Leveraging Game Elements
to Build Engaging Learning Content

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CONTENT OVERVIEW

What is Gamification?

Gamification is the application of typical elements of game playing, such as scoring, rules of play, and competition, to other areas of activity. In this context, we will look at the use of gamification in the creation of innovative learning resources.
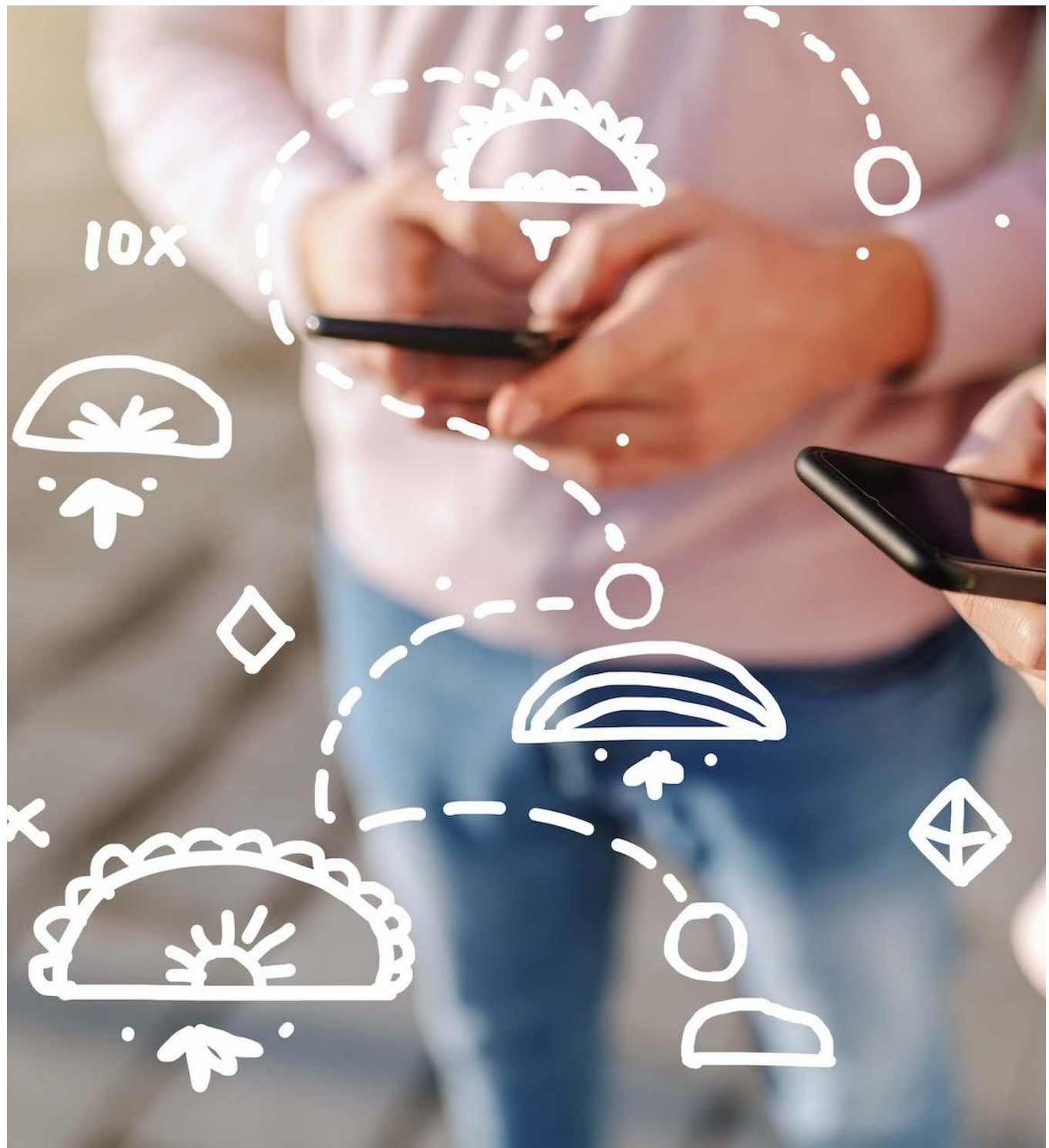
How Does it Help?

The use of gamification helps increase the engagement of the targeted user or audience with your activity, service or product.

Gamification plays on elements such as competition, goals, and narratives to effect deeper involvement of the user or audience. A deeper involvement translates in more robust results in whatever you're looking to achieve.

Can You Give Me an Example?

Think of the quizzes you were (probably) a part of while in school. There were points, prizes, and rankings based on who performed the best. This incentivised winning, building a healthy competitiveness in the activity of learning and knowledge building. This is an early example of gamification being used.

Looked at a little more closely, everyday life is replete with forms of gamification. From point-based reward systems for credit cards and frequent flyer programmes to the concept of 'likes' on social media, the instances of gamification being used by organisations are many.

How Can it Aid Learning?

Integrating game-based approaches into learning-related content and activities can facilitate greater learner engagement as well as higher retention of concerned concepts and learning objectives.

Gamification in Learning

1

How can gamification help with learning?

"Serious games" are games intended for a purpose other than pure entertainment such as training, learning or practicing an existing skill. Learning platforms and the technology for serious games are continuously advancing and expanding to a wide range of different domains, including the humanitarian sector.

2

What examples of gamification can one find in a learning context?

There is plenty of evidence of the successful application of game-based learning platforms in different sectors. Games such as *Food Force*, *Merchants*, and *Our City.* amongst others. teach players valuable skills such as spreading social awareness, negotiation, and civic knowledge and awareness.

3

Leveraging mobile technology for gamified learning

By leveraging mobile technology, one of the most commonly available digital computing devices, these games can be have a much bigger impact than most other mediums. The convenience, ease of use, and accessibility of mobile devices not only allows for easy creation of games, but widespread dissemination as well.

Tools for Gamification

These tools will help you optimise the game experience you create, ensuring that it uses technology effectively and aligns with the identified learning objectives for the experience.

TOOLS FOR GAMIFICATION
SAMR

Objective of Exercise
To assist educators in incorporating modern technology into their learning and teaching processes. Its purpose is to enhance and transform learning experiences, which will result in higher engagement, productivity and retention for learners.

About 'SAMR'
SAMR is used to conceive technology-enhanced learning solutions and measure their related impact. It is segmented based on the nature and extent of the intervention.

HOW TO USE?

Substitution
Tech acts as a direct tool substitute, with no functional changes

1

Ask yourself what will be gained by replacing traditional tools with technology. There should be a clear value addition it brings.

Augmentation
Tech acts as a direct tool substitute, with functional improvement

2

Ask yourself if the technology increases or augments the learner's productivity and potential in some way.

Modification
Tech allows for significant task redesign

3

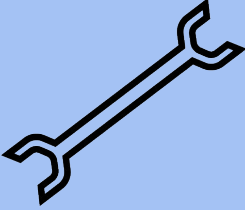Ask yourself if the technology significantly alters the original task and its goals.
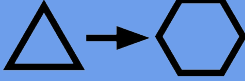
Redefinition
Tech allows for the creation of new tasks, previously inconceivable

4

Ask yourself if the technology allows educators to redefine a traditional task in a way that would not be possible without the tech.

TOOL: SAMR

		Definition	Example
Enhancement	Substitution	Substitution is the first step in redefining your learning activity. During this phase, technology acts as a direct tool substitute, but there is no functional change to the lesson.	A teacher directs students to use Google Earth to locate a place, instead of using an atlas.
	Augmentation	Augmentation is the second step in digitally enhancing your learning material. In this phase, technology acts as a direct tool substitute, and there is some functional improvement to the lesson.	The teacher instructs students to use Google Earth to measure the distance between two places on a map, instead of using callipers or simply estimating using a scale.
Transformation	Modification	The modification step begins to transform your lesson. Modification occurs when technology allows for significant redesign of the project or task in the lesson.	The class would be instructed to use Google Earth layers to research locations on a map.
	Redefinition	During the redefinition phase, the ultimate goal, technology allows for the creation of new tasks and projects that were previously inconceivable within a traditional lesson.	A teacher has students use Google Earth to create narrated, guided tours of a location, which they can share online with other students.

5 MOMENTS OF NEED

Objective of Exercise
To make sure the design of your game clearly addresses a specific juncture in the user's learning journey.

About '5 Moments of Learning Needs'
The model describes five routine occurrences in which a player requires information in order to accomplish the task at hand. The first two occurrences refer to formal learning procedures(NEW, MORE), whereas the other three(APPLY, SOLVE, CHANGE) refer to informal learning opportunities.

HOW TO USE?

Learning for the first time (**NEW**)
Expanding on what they have learned (**MORE**)
Plan & act upon what they have learned (**APPLY**)
When problems arise (**SOLVE**)
Learn a new way of doing something (**CHANGE**)

TOOL: 5 MOMENTS OF LEARNING NEEDS
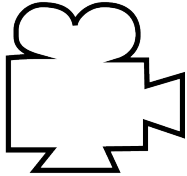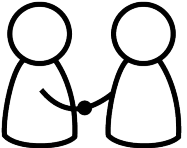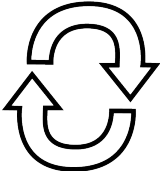
		Appropriate Resources	Example
Learning for the first time		Instructor-led sessions, webinars, MOOCs (massive open online courses)	An online course that introduce the basics of a certain concept
Learning more		E-learning courses with second level interactivity such as videos, animations, clickable graphics Scenario and gamified learning	A video that illustrates the nuances of a certain topic
Applying learnings		Bite-sized resources: 'How To' videos and modules, FAQs, product summaries Easy-to-use smartphone/tablet interfaces	An easily-to-access guide with quick tips on applying learnings
When things go wrong		Live chats, threaded discussions, and the sharing of relevant experiences Blogs and videos	A blog that covers different kinds of problems and their solutions
When things change		Peer-to-peer information sharing Instructor-led, online, mobile learning courses	A concise overview of changes and a guide to adapt to them

Game Elements

A game element is a specific component found in games that can be applied to the design process in order to ensure that the instructional game works effectively.

Knowing how to incorporate properly game elements into the game design is crucial to guide the learners through content and to achieve any outlined learning objectives.

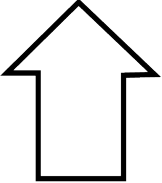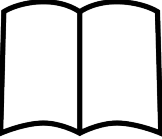| Element	Description	When to use	Examples
Videos	Videos help visualise learning content and transfer knowledge quickly and effectively. They should be used to disseminate information that otherwise needs text-heavy representations. In games, videos should be concise and highly visual to appeal to learners.	• When players require practical visualisation of the content • To help establish the narrative of a game or context	• A video of a narrator introducing the player to their role in the game • A practical demonstration of a task in the game • "Cut scenes" in video games that offer the player more information about how the story is progressing
Collaboration	Teams can be formed to have learners complete a task in a collaborative environment. Team-based activities act as platforms for cross-learning and healthy competition. Teamwork can motivate players to excel by fostering feelings of inclusion and aspiration towards a common goal.	• To build ideas and solve problems collaboratively • To appeal to a team environment or to competitive personalities	• In groups, players brainstorm new paths for their organisation or solutions to problems they face • Players work together to solve challenges based on learning materials • Groups compete with each other to demonstrate knowledge within a specific topic
Feedback	Feedback is an important element of motivation and learning. Feedback can be received from a facilitator or from a peer, in response to a variety of tasks. Learners respond better to clear and immediate feedback.	• To create a dialogue on a specific subject • To create ideas and solve problems collaboratively • To test and solidify concepts • To appeal to a team environment or to competitive personalities	• Rewards: points, awards, badges • Facilitator feedback: this could include constructive criticism or further explanation of topics that were not retained completely • Negative feedback: loss of points or diminished status

Element	Description	When to use	Examples
Points	Points are a form of feedback. They are rewards given to players based on achievement or desired behaviour. Facilitators can also use them to track progress. In games, points can also be used as a way for players to unlock additional content.	- To incentivise learning - To motivate a player - When you want to quantify the level of learning	- Points awarded for every task completed / correct answer - Points deducted for every wrong answer
Storytelling	Adding a fictional narrative to a game can motivate a player to accomplish fictional goals through the completion of real tasks. Narratives can also make games more memorable and immersive for the players.	- To create a more memorable playing experience - When you want players to think in a different way or to emphasise different ideas - To coordinate team activities in an engaging, fun way	An "Escape Room" is a game where a team of 4-8 players try to solve puzzles to escape a room. To motivate players, facilitators will add a unique storyline create a sense of urgency in the players. For example: players are told that they have 1 hour to diffuse a bomb by solving the puzzle.

Element	Description	When to use	Examples
Roles	Roles are used in games to further immerse players in a storyline and to have them participate in it as a certain person or character. Through this, learners can feel the satisfaction of completing the goals of a fictional persona. Roles can also add a social element to the game if there are multiple role-playing participants.	• To foster creativity, empathy and ingenuity • To coordinate team activities • To drive competition between players or teams • To divide responsibilities or tasks • To to help players develop a different perspective to the game, or advocate for a different point of view	• Players playing roles of a humanitarian volunteer and an affected person to develop preparedness and sensitivity to working in relief contexts
Badges/ Achievement	Badges and achievements are another form of feedback. They are rewards given to players after completing a task or series of tasks. Badges build a sense of accomplishment that motivates them to keep playing and learning. Facilitators can also use them to track progress. In some games, badges are also used as a way for players to unlock additional content.	• To incentivise learning • To motivate a player's competitive nature • When you would like to quantify the level of learning	• Girl and boy scouts receive badges to motivate kids to learn new skills like sewing, cooking, fire starting etc.

CREATING A NARRATIVE
RAPID PROTOTYPING

Objective of Exercise
To start visualising how your game will look on a mobile screen, and defining the various elements that can be used to augment the learning objective or gamify the narrative.

About 'Wireframing'
Wireframing are basic sketches/mockups of website and mobile screens. This format allows for the quick visualisation of phone screens to layout game elements and see how interactions would work on screen.

Don't forget to add the gamification element to each wireframe!

HOW TO USE?

Gamification Element:

Gamification Element:

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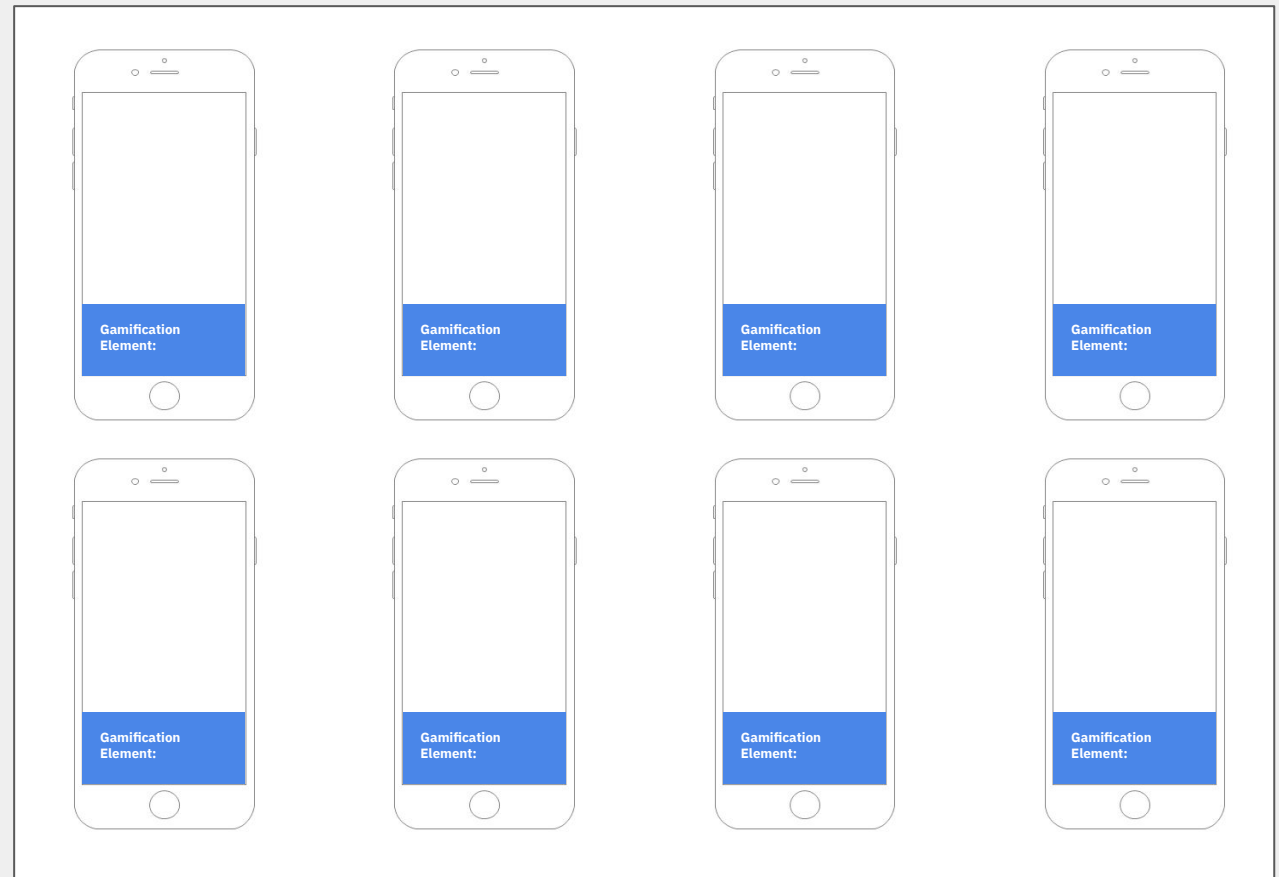
1
Digital Interactions
Consider: If wireframes are the best way to represent the idea. Is it a digital product, screens or interaction that needs to be visualised?

2
The Steps
Break it down: Into the distinct stages/steps that you want to visualise. These steps could belong to a macro/high level journey or you may want to get into detail in one part. Each distinct step can be visualised and detailed as a wireframe.

3
Visualise & Connect
Draw it out: Draw the key wireframes out including key interactive elements, messages, flows and connections between the screens.

*
Flows
App screens flow into each other. Therefore, it is important to establish connections between wireframe screens.

PROTOTYPING TOOLS: WIREFRAMING

Gamification Element:

Gamification Element:

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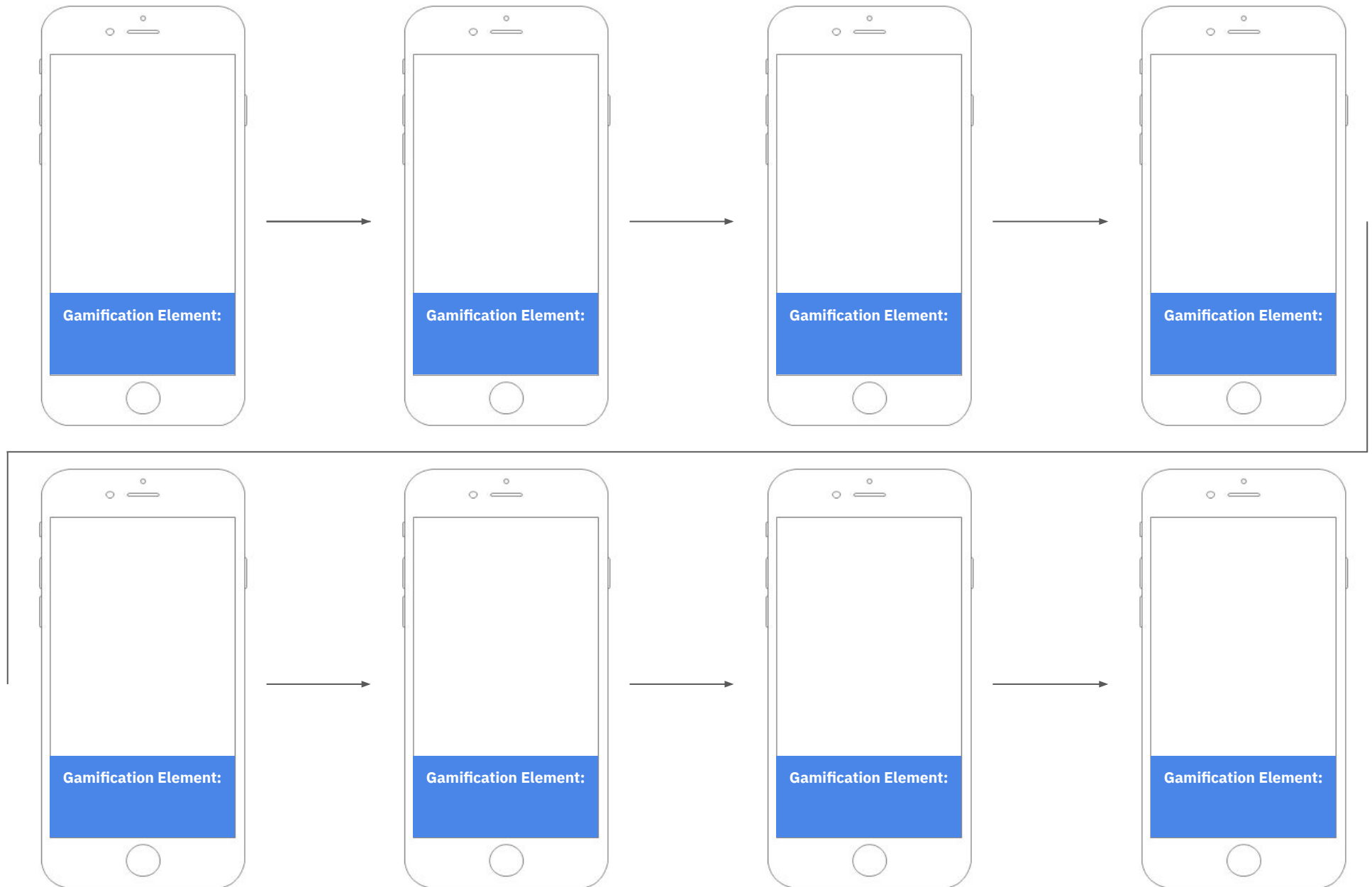
PROTOTYPING TOOLS: WIREFRAMING

Branching in Wireframing

If you visualise multiple journeys for your user within the same game, be sure to break them up as illustrated below. Be sure to highlight the points at which the game branches out (through an action like a multiple choice question) and where it resolves.

Gamification Element:

Gamification Element:

Gamification Element:

Gamification Element:

Gamification Element:

Gamification Element:

PROTOTYPING TOOLS: WIREFRAMING

Your games

Game 1
An Exercise in Coaching and
Completed

Game 2
The Flood : Multiplayer
Completed

Game 3
An Exercise in Coaching and
In Progress

Game 3
The Flood

Back

Introduction

Welcome to the Coaching and Mentoring game!

Through this game, you will experience first-hand what it is

Back

Overview

If played continuously, the game will take 30 minutes to play.

During this game, you will be asked to use video to share

Back

Your Role

In this game, you are the coachee to a coach. Your role is to:

1. Provide open and honest feedback to the coach

Back

Your Coach

Your coach will:

1. Establish a coaching contract with you
2. Help you to start to address the

Back

An Example

Before you start, here is an example of how a good coaching session can work.

For further examples, refer to the 'How to coach and mentor: The essentials' section in the Introduction to Coaching and Mentoring course on Kaya.

Back

Level 1 - Preparation

Your coach is currently recording a video introducing themselves to you, which they will share with you shortly. While watching the video, think about:

Back

Level 1 - Feedback Part I

How comfortable did the coach make you feel?

◉ Quite comfortable and relaxed
○ Not very comfortable

Back

Level 1 - Complete

Congratulations! You have completed Level 1 of the game.

COMPLETED ✓

Test w Ragini

ⓘ Summary   🗎 Game Feed

✓ **Congratulations!** You have completed this game.

Game 1

An Exercise in Coaching and Mentoring

Event title

What Makes a Good Game?

Now that you've gone through different tools and concepts, here's a summary of the different aspects you might need to consider while creating a gamified learning experience:

A Compelling Narrative to draw in and orient the learner towards the concerned learning objective

Interactivity in the form of activities and exercises that augments the learner's engagement with the experience

Media to enrich the effectiveness of the narrative and help the learner visualise what the game attempts to portray

Contextualisation based on the learner's background, culture, and understandings of the concerned topic

Narrative

A convincing, interesting, and engaging narrative that outlines and informs the larger experience is crucial to a good game. This will include factors like a well-established **setting**, a gripping **plot**, and believable **characters**, to create a world that the learner feels a part of.

Apart from its implications on **storytelling**, a well-crafted narrative renders a deeper sense of **purpose** in its players, pushing them to play for more than just winning.

Interactivity

Once you have created your narrative, leveraging different forms of interactivity in your game will help convince your learner of their role in this world and the storyline you have written. A **blend** of different kinds of interactivity will lead to a more **proactively engaged learner**.

Interactivity also lends itself to inculcating an environment of **competition** that pushes players to better each other while playing. This leads to greater **engagement** and **motivation**.

Media

Creating and utilising media, in the form of illustrations, video, sound, among others, will help your learner visualise the narrative you have created while also facilitating their engagement with the experience.

Contextualisation

Understanding your learner, their background and current understanding of the topic you are going to teach them about, is important to ensure the effectiveness of the content you create.

Testing Your Game

Apart from the testing methodology captured in the Concept Building Toolkit, here are some prompts you and users can answer when evaluating a game.
Try keeping the answers closed ('yes', 'no', 'somewhat', 'not relevant') in order to capture responses in a quantitative manner.

1. **Is the objective of the game clear to the players?**

2. **Do the players have clear responsibilities in the game?**

3. **Can the player begin the game without too much instruction?**

4. **Do the players receive feedback during the game so they can adapt their play behaviour?**

5. **Do the players need each other to reach goals in the game?**

6. **Does the game trigger interaction between players and the real world?**

7. **Are there different outcomes for different players?**

8. **Does the game facilitate transferrable outcomes (behaviour change, critical skills, etc.)**

9. **Would the game be useful for different types of learning groups?**

10. **Is it possible to modify the game concept for other uses?**

Get in Touch!

Do get in touch with us, and let us know what you thought of this toolkit! We'd love to hear from you.

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