













Jihočeská univerzita v Českých Budějovicích University of South Bohemia in České Budějovice

LIST O CRITERIA

FOR BEST PRACTICES























LIST OF CRIA

Document code: HG_WP2_T1_ER1_25-03-2024_v2

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Dissemination level: PU

















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BEST PRACTICE: DEFINITION

Best practice is a technique or method that, through experience and research, has proven reliably to lead to the desired result (WHO, 2008); standard or set of guidelines that is know to produce good outcomes if followed (WHO, 2017); practices that specific groups believe are more effective at delivering particular outcomes than other practices, and are subsequently used as benchmarks to strive for (Andrews, 2012).

Features of best practice:

- the word 'best' should not be considered in the superlative sense, it is not about a state of perfection;
- it can be used as a benchmark as it is usually evidence-based;
- documenting and applying lessons learned on what does not work and why it does not work are its integral parts, so that the same types of mistakes can be avoided by other projects;
- need to be shared and adopted to benefit more people.

Best practice is knowledge about what works in specific situations and contexts, achieves the desired results, and which can be used to develop and implement solutions adapted to similar problems in other situations and contexts.



















BEST PRACTICE: DEFINITION

Our work definition:

Best practice is ...

knowledge about what gamification tools applied to cultural heritage work, achieve the desired results, create sustainable effects, and engage the target community.



















Identifying best practices involves judgement, which requires prior analysis using two types of criteria: impact and gamification.

Impact criteria are universal and more general and they can be used for assessing any type of case study (initiative). They measure the degree in which the initiative generates or has a potential to create outcomes and effects.

- 1 Performance
- 2 Accessibility and Inclusion
- 3 Innovation and Creativity
- 4 Social and Cultural Impact



















1

Performance

1.1

Effectiveness

The initiative works well and achieves desirable results. The initiative meets the prespecified objectives. The criterion measures the degree to which the initiative was successful in producing the desired result (e.g., fulfilling the prespecified objectives).

:

The initiative leads to the following results:

- enhanced awareness on cultural heritage among the community,
- enhanced interest and knowledge on cultural heritage among the community,
- increased revenues in the territory and/or region and/or country,
- increased tourist flows in the territory and/or region and/or country,
- increased engagement of the target community,
- increased motivation of the target community to participate in cultural heritage preservation stems,
- reduced vandalism behaviours among the community,
- enhanced consciousness towards cultural heritage among the community.

The list of results is an example. The idea is if the objectives of the initiative were to enhance awareness on cultural heritage among the community and increase the revenues in the territory and if it has enhanced the awareness on cultural heritage among the community and increased the revenues of the territory, it should be considered as effective.





















Sustainability

The initiative guarantees long-term viability of the project activities and its effects. The criterion measures the degree to which the initiative has the ability to be maintained in long run.

- demonstrates (potential of) continuation of the project activities (e.g., it is in alignment with national, regional, EU goals, political commitment, community participation, stakeholder partnership, etc.),
- demonstrates (potential of) continuation of benefits to the community and/or territory,
- demonstrates (potential of) continuation of capacity to deliver project activities (incl. source of funding in long run, at least 1 year after the external funding stops),
- states duration of the project activities since the start of their implementation,
- is applied for a long time (e.g., minimum 5 years after its start).



















2

Accessibility and Inclusion

2.1

Accessibility

The initiative allows all audiences to benefit the initiative and its outcomes and experience the gamification mechanics. The criterion measures the degree to which the initiative provides equal access, and all interested people could benefit its outcomes.

- is not restricted to the application of a given operating system, software or hardware requirements or brand,
- does not require specific skills (programming, mathematical, language, etc.).





















Inclusion

TThe initiative promotes social inclusion and equal opportunities. The criterion measures the degree to which the initiative is not socially discriminative.

- provides no discrimination on the grounds of gender or sexual orientation, age, colour, race, religion, place of origin, nationality, castle, political or religious ideas, disability, social origin or condition, marital status, ethical origin, membership of a national minority, property, generic features, economic resources,
- is not restricted to the type of the gamified activity and is open to all audiences who are able to carry out either physical, or virtual gamified activities.



















3 Innovation and Creativity



Originality

The initiative sets the gamified activity apart from other projects and provides a unique experience. The criterion measures the degree to which the initiative provides a new and different experience the target community never had before.

- delivers an exceptionally different experience for the users, things they have never experienced before,
- provides users with an experience they enjoy and remember.





















Creativity

The initiative contributes to a richer and more immersive user experience.

The criterion measures the degree to which the initiative puts the target community in a 'real world' or/and 'real age' where they can engage with the settings and characters.

The initiative:

- employ game elements and game design which make the users feel more like an actual person who have lived at that age (thoroughly developed stories, clothes, surroundings, extreme realism).







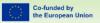














Social and Cultural Impact



Social Development

The initiative promotes social cohesion and sense of belonging. The criterion measures the degree to which the initiative makes users feel like a part of a community.

The initiative:

- makes users feel part of a group (e.g., feel more Europeans or Bulgarians),
- makes users feel that other members of the group share similar preferences, attitudes, values, beliefs.



Enhancement of Social Culture

The initiative promotes knowledge and respect to local traditions and customs. The criterion measures the degree to which the initiative makes target community more aware of and more tolerant towards local customs, beliefs, religious practices, and cultural expressions.

The initiative:

- requires users to be appropriately dressed and demonstrate appropriate behaviour.



















Multiplier effects

The initiative generates or guarantees generation of beneficial spin-off effects, spin-over effects, or both.

Targeted community is empowered with skills, knowledge, values, resources to uplift other communities (as the affected individuals and communities work together and their collaboration creates new, unexpected results). The criterion measures the degree to which the initiative creates (has a potential) valuable results beyond the planned and expected ones.

The initiative generates or demonstrates a potential to create:

- additional result, not originally planned, unexpected but useful or valuable for the community/nation/region/country (e.g., the objective of the initiative is to enhance the awareness on cultural heritage among the community, but we observe reduced vandalism behaviours among the community as well (a secondary positive effect beyond the direct effect on the target audience),
- unintended effect that goes beyond its intended scope (e.g., the objective of the initiative is to enhance the awareness on cultural heritage among the target audience, but we also observe enhanced awareness on cultural heritage among other non-target audiences due to social interaction; target group is engaged in the gamified activity but they interact with other (non-targeted) people who have enhanced their awareness too).



















Gamification criteria are specific for the field of study. They provide representativeness of the criteria from gamification strategies, heritage significance, IT/technological perspectives, etc.

- 1 Intrinsic motivation heuristics
- 2 Extrinsic motivation heuristics
- 3 Context-dependent heuristics





















Intrinsic motivation heuristics



Purpose and Meaning

Affordances aimed at helping users identify a meaningful goal that will be achieved through the system and can benefit the users themselves or other people.

- II. Meaning: The system clearly helps users identify a meaningful contribution (to themselves or to others).
- 12. Information and Reflection: The system provides information and opportunities for reflection towards self-improvement.
- There is a narrative that contextualises and gives meaning to the challenges/tasks that are requested.
- The player realises his role and the importance of his actions in the context of the activity/game
- The player is invited to be the hero/protagonist in the story by finding the solution or saving the day.





















Challenge and Competence

Affordances aimed at helping users satisfy their intrinsic need of competence through accomplishing difficult challenges or goals.

- 13. Increasing Challenge: The system offers challenges that grow with the user's skill.
- 14. Onboarding: The system offers initial challenges for newcomers that help them learn how it works.
- 15. Self-challenge: The system helps users discover or create new challenges to test themselves.
- It offers levels of increasing difficulty.
- The early levels take place as a tutorial explaining the rules that players must follow. Or every time there is a new rule, a practice match is played with a tutorial.





















Completeness and Mastery

Affordances aimed at helping users satisfy their intrinsic need of competence by completing series of tasks or collecting virtual achievements.

- 16. Progressive Goals: The system always presents the next actions users can take as tasks of immediately doable size.
- 17. Achievement: The system lets users keeps track of their achievements or advancements.
- Prizes are awarded, ranging from objects that can be used in the system itself (props or tools /weapons) or even trophies or medals. These should have the meaning of a prize, i.e. they are received after an excellent performance.
- The player's progress throughout their experience is known. In other words, you know where you are and what remains to be achieved.
- The system features a "trophy shelf", i.e. an area where the player can consult the awards they have received.





















Autonomy and Creativity

Affordances aimed at helping users satisfy their intrinsic need of autonomy by offering meaningful choices and opportunities for self-expression.

- 18. Choice: The system provides users with choices on what to do or how to do something, which are interesting but also limited in scope according to each user's capacity.
- 19. Self-expression: The system lets users express themselves or create new content.
- 110. Freedom: The system lets users experiment with new or different paths without fear or serious consequences.
- The system allows the player to make choices, such as choosing the route to take or tools to use.
- The system allows the player to create new content and make it available on the system for other players.
- Sandbox system, i.e. it has the pieces and tools, and the player can create whatever he or she can imagine. The best-known examples are Minecraft and LEGO.



















Relatedness

Affordances aimed at helping users satisfy their intrinsic need for relatedness through social interaction, usually with other users.

- III. Social Interaction: The system lets users connect and interact socially.
- II2. Social Cooperation: The system offers the opportunity of users working together towards achieving common goals.
- II3. Social Competition: The system lets users compare themselves with others or challenge other users.
- II4. Fairness: The system offers similar opportunities of success and progression for everyone and means for newcomers to feel motivated even when comparing themselves with veterans.
- It involves everything that encourages interaction between players (collaboration, competition, sharing, dialogue, envy).
- The system allows co-operation or even encourages players to help each other to overcome challenges.
- The system has a way of publicising achievements (grab system), allowing other players to want to achieve the same result (envy).
- The system makes players feel that they can achieve the same results as veteran players (points return to zero with each match or with each level players can compare their performance with previous players at the same level).





















Immersion

Affordances aimed at immersing users in the system in order to improve their aesthetic experience, usually by means of a theme, narrative, or story, which can be real or fictional.

II5. Narrative: The system offers users a meaningful narrative or story with which they can relate to.

II6. Perceived Fun: The system affords users the possibility of interacting with and being part of the story (easy fun).

- The system includes a narrative that includes the player in the dynamics that are taking place.
- The system offers an environment (sound, space, interactivity) that, together with the narrative, allows the player to feel immersed in the experience.
- The system allows the use of virtual reality, creating a true immersion where the player can interact with virtual objects and explore the environment with pleasure.

















Extrinsic motivation heuristics

Ownership and Rewards

Affordances aimed at motivating users through extrinsic rewards or possession of real or virtual goods. Ownership is different from Competence when acquiring goods is perceived by the user as the reason for interacting with the system, instead of feeling competent.

- IEI. Ownership: The system lets users own virtual goods or build an individual profile over time, which can be developed by continued use of the system and to which users can relate.
- E2. Rewards: The system offers incentive rewards for interaction and continued use, which are valuable to users and proportional to the amount of effort invested.
- E3. Virtual Economy: The system lets users exchange the result of their efforts within system or external rewards.
- The system allows you to collect objects/stamps that can remain as a memento of the experience. These can be awarded randomly or as a reward after completing an activity.
- Awarding prizes with meaning for the player.
- Exchange system, i.e. the player can exchange objects with other players or even receive something that they can use as money to exchange for objects in a shop. For example, you receive coins that you can then use to buy collectibles.





















Scarcity

Affordances aimed at motivating users through feelings of status or exclusivity by means of acquisition of difficult or rare rewards, goods, or achievements.

E4. Scarcity: The system offers interesting features or rewards that are rare or difficult to obtain.

- The System has prizes or collectibles that are rare or only available for very short periods of time.
- Timers are used to wait for something to become available or to limit the amount of time something can be used or awarded.



Loss Avoidance

Affordances aimed at leading users to act with urgency, by creating situations in which they could lose acquired or potential rewards, goods, or achievements if they do not act immediately.

E5. Loss Avoidance: The system creates urgency through possible losses unless users act immediately.

- Nobody likes to lose, so players try harder when something they have already received is threatened. This can happen due to player inactivity or because of previous moves.





















Context-dependent heuristics



Feedback

Affordances aimed at informing users of their progress and the next available actions or challenges.

- C1. Clear and Immediate Feedback: The systems always inform users immediately of any changes or accomplishments in an easy and graspable way.
- C2. Actionable Feedback: The system always informs users about the next available actions and improvements.
- C3. Graspable Progress: Feedback always tells users where they stand and what is the path ahead for progression.
- Feedback can occur in a simple way via sound (hit vs miss) with each action performed by the player.
- The player receives precise information about their performance (score, quality of action) and instructions on what to do next.





















Unpredictability

Affordances aimed at surprising users with variable tasks, challenges, feedback, or rewards.

- C4. Varied Challenges: The system offers unexpected variability in the challenges or tasks presented to the user.
- C5. Varied Rewards: The system offers unexpected variability in the rewards that are offered to the user.
- The player doesn't know what will happen next, the system can hint at the continuation of the narrative or there are random situations that are difficult to predict.
- The objective and rules are known, but it's unknown what the next challenge will be and what prize will be awarded. Here, what drives the player to continue is the curiosity to know what comes next.





















Change and Disruption

Affordances aimed at engaging users with disruptive tendencies by allowing them to help improve the system, in a positive rather than destructive way.

C6. Innovation: The system lets users contribute ideas, content, plugins, or modifications aimed at improving, enhancing, or extending the system itself.

C7. Disruption Control: The system is protected against cheating, hacking, or other forms of manipulation from users.

- This is a rare mechanic; it presupposes the possibility for players to contribute new features or improvements to the system. It could be a simple suggestion box or even the development of new features.
- The possibility of seasons in which the whole structure is remodeled, with new features or even new rules.

















All partners should use the file 'Best practice identification criteria.xlsx' for archiving all identified projects, their evaluation by raters, assessing interrater reliability, calculating final scores of each project, ranking (sorting) the project final scores in descending order. The first two projects will be defined as 'best practice' for a given country. All projects identified as 'best practices' across the seven countires will be used for preparation of a synthesis report.

All partners are responsible for collecting information on the projects (case studies on community-based gamification in cultural heritage) implemented in their countries.

All collected databases are archived and coded as follows: Country code-xxx, where xxx is the ID number of the project (e.g., BG-001, BG-002, BG-003, ..., etc. for Bulgaria; PT-001, PT-002, PT-003, ..., etc. for Portugal; RO-001, RO-002, RO-003, ..., etc. for Romania; CZ-001, CZ-002, CZ-003, ..., etc. for Czech Republic; SK-001, SK-002, SK-003, ..., etc. for Slovakia; IT-001, IT-002, IT-003, ..., etc. for Italy; TR-001, TR-002, TR-003, ..., etc. for Turkiye).

All coded projects are assigned to raters for evaluation. To minimize the subjectivity and rater's bias, each project is assigned to two raters. Raters evaluate the assigned project independently. They enter their codes and rates in the sheets Gamification criteria (GC) and Impact criteria (IC).

Raters' codes include Ryy, where yy is the ID number assigned to the rater (e.g., raters' codes for Bulgaria could be R01 – Asen, R02 – Margarita, etc.).

Raters use 6-point scale, where 5 = very high, 4 = high, 3 = neither high, nor low, 2 = low, 1 = very low, 0 = not applicable).

















The projects evaluated by the raters are coded as follows: Country code-xxx-Ryy, where xxx is the ID number of the project, yy is the ID number assigned to the rater (e.g., BG-001-R01 – first project for Bulgaria is assigned for evaluation by Asen).

All projects rated by the raters are collected (pasted) in the sheet Ratings. They are sorted by Raters' code column.

Ratings of a given project given by the both raters are copied from the sheet Ratings and pasted in the sheet Inter-rater assessment for assessing reliability (Paste Special-Transpose as the ratings in sheet Ratings are presented in rows but they should be presented in sheet Inter-rater assessment as columns).

If raters' ratings are reliable (Agreement coefficient ³ 80%, cell G24 in the sheet Inter-rater assessment is coloured in green). If the ratings of the pair of raters are not reliable (not consistent), a third rater should be assigned. The third rater should review the disagreement criteria and evaluate the project. As the agreement threshold of at least 80% is achieved (cell T24 in the sheet Inter-rater assessment is coloured in green), the final project score is calculated as an average of raters' scores.

All evaluated projects are described in accordance with the characterisation criteria in the sheet Characterisation and sorted in descending by their final project score. The first two projects with the highest final project score are titled as 'Best practice' for a given country.



















All assessed projects should be characterised using the following descriptions:

Typology

Tangible

UNESCO defines material heritage as the physical manifestations of human creativity and expression that are valued for their cultural, historical, aesthetic, scientific, or spiritual significance. Material heritage includes tangible objects, structures, sites, and landscapes that have been created, modified, or used by humans over time and hold cultural significance for communities, societies, or humanity as a whole

Intangible

UNESCO defines intangible heritage as the practices, representations, expressions, knowledge, skills, and cultural spaces that communities, groups, and individuals recognize as part of their cultural heritage. Examples of intangible heritage: traditions, oral history, rituals, performing arts, social practices, traditional craftsmanship, and knowledge systems passed down from generation to generation.

Natural

Natural heritage refers to natural features, geological and physiographical formations and delineated areas that constitute the habitat of threatened species of animals and plants and natural sites of value from the point of view of science, conservation or natural beauty. It includes private and publically protected natural areas, zoos, aquaria and botanical gardens, natural habitat, marine ecosystems, sanctuaries, reservoirs etc.



















Classification

Local

Assets whose protection and enhancement, in whole or in part, represent cultural value of predominant significance for a given local community.

National

When the respective protection and valorisation, in whole or in part, represents a cultural value of significance for the nation.

International

When the respective heritage is integrated in the UNESCO lists.

Technologies/Tools

Description of what the game/experience is based/designed on (e.g. Virtual Reality; Augmented Reality; Artificial Intelligence; Analog supports; Geolocation; Interactive tools; among others).

Equipment

Description of what equipments were used (e.g. mobile phone; computer; tablet; wearables; paper; among others).



















Community involvement

By community involvement we mean more than just consultation. Community involvement requires local non-governmental stakeholders (associations, groups, entrepreneurs, individuals) to have an active role in decision making.

Description

Involves description of the practices, where and when it happens.

Gamification process description

Meaning, design, rules, elements, mechanics, dynamics.

















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The project No. 2023-1-PT01-KA220-HED-000154261 "A gamification model for community-based heritage work" is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

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