

Cultural Games Creation: An Applied Game Jam Model

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Abstract: The present study conducts an important analysis of the operationalisation of a theoretical framework for applied game jams to cultural purposes, the Applied Cultural Jam Model, aiming to encourage youth (18-28 years of age) to develop games with and for culture. Building upon the initial study presented at ECGBL24 (Almeida et al., 2024), this work introduces significant new insights derived from the analysis of three EPIC-WE Cultural Game Jams (ECGJ#01-03) conducted between February 2024 and February 2025. These events involved 71 university students, 21 facilitators, and 4 observers, culminating in the creation of 24 games designed for cultural and educational purposes. Using the Applied Jam Framework (AJF), a holistic model proposed by Reid et al. (2020), the ECGJ considers the four AJF dimensions to enable participants to embed the cultural themes of each game jam: (i) fostering a creative environment (Problem Space); (ii) involvement of cultural stakeholders in the design and participation of the game jam (Jam Design); (iii) achievement of intended outcomes, participation and experience feedback (Jam Delivery and Outcomes); (iv) post-mortem analysis, compiling and disseminating outcomes, achievements, difficulties, and opportunities during the game jam (Follow-On Opportunity). This study ensures the proper application and analysis of the model, leading to significant results derived from the assessment of participant performance (through semi-structured interviews, questionnaires and observation grids), the influence of stakeholders (game jam design with active participation of facilitators), contributing to the model adjustments and iterations throughout the three game jams.

Keywords: Game jams, Applied game jam, Cultural games, Youth

1. A Cultural Game Jam Context

Game Jams are collaborative events where game developers and enthusiasts from varied backgrounds come together to generate ideas and rapidly prototype games within a defined theme and time limit (Kaitila, 2012; Kultima, 2015). Numerous jams are organised globally, providing several meaningful insights for the participants (Wirman & Jones, 2019), which can disseminate their developed designs in the game jam platforms, like itch.io or jam specific sites. Events like the Nordic Game Jam (2006) and the Global Game Jam (2009) introduced the widely adopted structure frequently used today, and popularised a versatile model through its globally synchronised events hosted by institutions around the world (Arya et al., 2013). According to Lai et al. (2021), a typical jam includes: (1) a 48-hour timeframe, (2) ice-breaker activities, (3) a theme reveal, (4) pitch sessions, (5) team formation, and (6) final presentations. Games are developed during the event and uploaded to their official platform. Most game jams follow the aforementioned model, which is more common than research about models and processes in applied game jam models (Conceição et al., 2024).

In the following study, we aim to demonstrate the results achieved through the application, and adaptation, of the Applied Jam Framework (Reid, Phillip & Donald, 2020) in the context of game jams with cultural purposes, aimed at empowering young people to create games with culture and for culture, over a year and a half during which the research team organised three game jams.

1.1 EPIC-WE Cultural Game Jams: The Case Study

The EPIC-WE Cultural Game Jams (ECGJ#01-03) were initiatives from the Horizon Europe EPIC-WE project, which aims to empower young people by fostering social and cultural values through game creation in cultural game jams (Almeida et al., 2024). EPIC-WE introduces a collaborative framework, based on the Quadruple Helix (QH) model, which fosters exchanges of knowledge and technology across diverse sectors (Aggarwal and Sindakis, 2022), blurring boundaries between public institutions, academia, industry, and citizens (Nørgård and Holfold, 2024).

Based on the QH framework, the ECGJs emerged as a process for young game creators (Youth) to culturally create meaningful games, with the support of a local cultural site (Óbidos Municipality), a games company (Battlesheep) and a higher education institution (HEI) (Lusófona University).

Drawing on research from the EPIC-WE project and Lusófona’s Game Lab’s experience in organising multiple game jams since 2014, the primary focus of the ECGJs was to promote game development inspired by cultural heritage, demonstrating how an applied game jam model could contribute to cultural research and innovation. Lusófona’s empirical experience organising game jams fosters creating a carefree and playful environment for game development, more focused on knowledge sharing and well-being. There are no participation rules that impose mandatory tasks, lesson attendance, or any limitations that might make the experience feel less free. Much like a “magic circle” (Johan Huizinga, 1949), a game jam should be a safe space, a voluntary activity without demands, defined only by a time limit frame, usually during 48-72 hours.

However, game jams have always outcomes (Ryan et al., 2015) and in the specific case of the objectives involving an institution, organisation, or a sponsorship, it is common for this “magic circle” to be diluted by processes that may require a redefinition of the traditional game jam concept (Eberhardt, 2016; Goddard et al., 2014). In such cases, several authors advocate for game jams with applied purposes, thus invoking the concept of a *Serious Game Jam* (Aibara, 2020), *Slow Serious Game Jams* (Abbot et al., 2023), a restructure of the standard jam model that lacks methodologies and tools (Arnab et al., 2015).

1.2 Models for Applied Game Jams

Whenever the goal is to engage jammers in applied game jams, organisers need to offer clear guidance and support to enable the efficient development of Serious Games within the limited timeframe. An effective approach to achieve this is by creating structured missions that outline specific tasks, schedules, and deadlines, helping participants stay on track and complete their game projects within the event’s duration (Aibara et al., 2020). Thus, several studies demonstrate the implementation of good practices through applied models (Costa et al., 2024), defining practical guidelines (Cornish et al., 2017), frameworks for ideation tools (Peters et al., 2021), using the Mechanics Dynamics Aesthetics (MDA) framework to the game ideation and design process (Buttfield-Addison, Manning, Nugent, 2016), to boost the game development scene (Sotamaa et al., 2020), to embedded culture (Nijdam, 2021), for the empowerment of collaborative design work (Kinnula et al., 2018), among others. The present study reflects the insights from the Serious Game Jam Operation Manual (Aibara et al., 2020) and the AJF (Reid et al., 2020) to create and improve the EPIC-WE game jam model. The developed prototype Serious Game Jam Operation Manual aims to provide a model capable of engaging participants in developing serious games, ensuring proper support for the ongoing themes within the short time frame typical of a game jam (usually 48 hours). The operation manual is divided into the Preparation Stage, the Lecture Stage, and the Development Stage. The AJF has an important difference compared to the previous model, as it seeks to evaluate the games created in the long term. This is a gap in most studies on game jams, which primarily focus on the event and model, rather than the long-term impacts. Although the AJF model does not specify a fixed methodology, Reid et al. propose a four-step application (see Fig. 1).

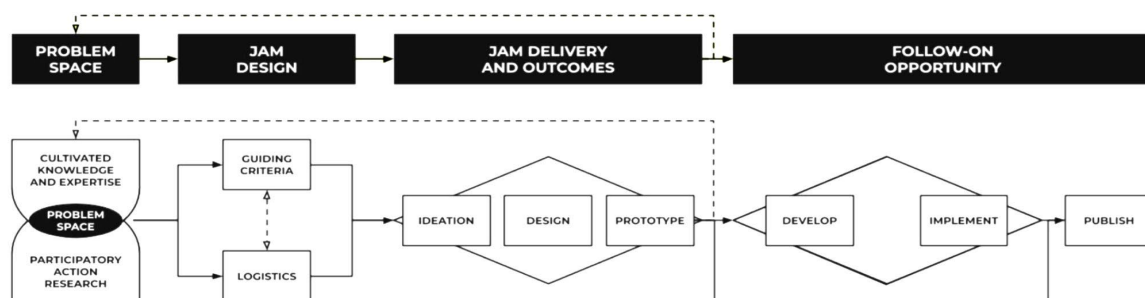


Figure 1: Theoretical Framework for Game Jams in Applied Contexts (Reid et al. (2020))

2. Methodology - Applied Cultural Jam Model

There is limited evidence of AJF application in the current state of the art (Costa et al., 2024). A notable example is its application in a different game jam format, the Serious Slow Game Jam, in which the authors emphasise the importance of reflection and reception of serious themes for the efficacy of the game jam. While traditional game jams typically last 48–72 hours, immersing participants in intense game creation, this contrasts with game development formats that can extend from months to years. Whether the “slow game jam” format can truly be considered a game jam is debatable, a topic not addressed in this context, but worth mentioning, as the present study follows the AJF guidelines within the intensive format of the traditional game jams.

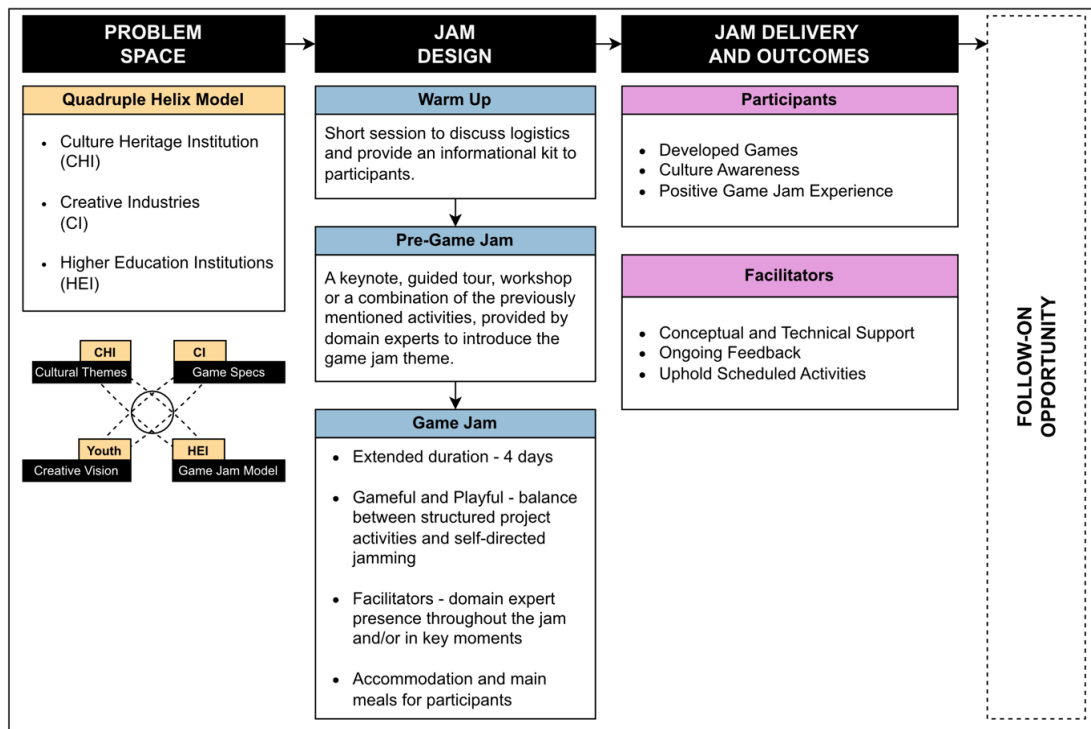


Figure 2: Applied Culture Jam Model (ACJM)

The Applied Cultural Jam Model (ACJM) represents the operationalisation of the AJF in the context of cultural game jams ECGJ#01 to #03, which are discussed in more detail below.

2.1 Problem Space

The primary objective of these game jams was to empower young people by promoting social and cultural values through the process of game creation. The design constraints for all game jams were defined through the QH model according to: (1) the Cultural Heritage Institution (CHI) Óbidos municipality cultural branch suggested themes; (2) the creative industry (CI) represented by Battlesheep, that defined the games had to be digital as a contribution to game development in the national context; and (3) the HEI represented by Lusófona University, that provided the theoretical framework for the applied game jam model; (4) to challenge youth to share their creative vision by creating games that reflect the cultural topics and values present in the themes of each game jam.

In line with EPIC-WE project directives, the themes of ECGJ#01 and ECGJ#02 were defined by the local hubs in Denmark, the Netherlands, and Portugal. For ECGJ#03, a glocal approach was adopted: the initial theme was set by EPIC-WE project leads and subsequently adapted by each hub to reflect local contexts.

2.2 Jam Design

The following section details the design and organisation of the game jams. While logistics remained largely consistent across all three events, variations are noted where adjustments occurred due to ACJM iteration or other constraints.

2.2.1 Logistics

The three ECGJ were held in Óbidos, a medieval village encircled by a castle wall. Participants were provided with accommodation in village houses and main meals (lunch and dinner) over 4 days. Additionally, transportation to and from the venue was arranged on the first and final days of the event. This arrangement was designed to immerse participants in a culturally rich environment while enabling them to concentrate more effectively on the creative tasks. Another important consideration was the duration of the events, the decision to allocate 4 days for the game jams was deliberate and aimed at compensating for the time required by EPIC-WE project activities that, throughout the event, interrupted participants' game development processes. This resulted in game jams with more than 48 hours, allowing for a good balance between gameful, more structured moments and playful ones (Goddard, 2014).

2.2.2 Guiding criteria

Introduced in ECGJ#02, Warm-Up sessions are 45-minute meetings designed to onboard participants to the cultural game jam context within the EPIC-WE project, clarify their roles, and address initial questions. These sessions also served to establish early communication with participants. While initial contact was made via email, Discord emerged as the preferred communication platform. To enhance preparedness for the game creation phase, participants are informed of themes and topics several weeks in advance, hence the term 'pre-game jam', a practice aligned with the preparation phase outlined in the Serious Game Jam operation manual (Aibara et al., 2020).

Event	Activity	Dates	Duration	Short Description	Theme
ECGJ#01	Pre-Game Jam	9 January 2024	5h	Keynote and Ideation through a guided workshop based on the MDA framework.	Óbidos UNESCO City of Literature
	Game Jam	6 to 9 February 2024	52h	Refer to the game jam schedules table.	
ECGJ#02	Warm-Up	27 March 2024	1h	Online session to discuss logistics and provide an informational kit to prepare participants.	Sustainability and Biodiversity Óbidos Lagoon
	Pre-Game Jam #1	12 April 2024	1h30m	Sustainable Development Goals - 14 Life Below Water and 15 Life on Land	
	Pre-Game Jam #2	15 April 2024	8h	Guided visit with a facilitator to the Óbidos Lagoon	
	Game Jam	29 April to 2 May 2024	71h	Refer to the game jam schedules table.	
ECGJ#03	Warm-Up	22 January 2025	1h	Online session to discuss logistics and provide an informational kit to prepare participants.	That's Not Fair December 1st 1973 Óbidos Reunion
	Pre-Game Jam	4 February 2025	8h	Group Dynamics & Ideation with shadowplay using materials collected from the village.	
	Game Jam	5 to 7 February 2025	51h	Refer to the game jam schedules table.	

Figure 3: EPIC-WE Cultural Game Jam #01-03 event breakdown

In contrast to ECGJ#01 and ECGJ#02, the pre-game jam activities for ECGJ#03 were held on the first day of the event due to scheduling constraints. This edition introduced new elements, including group dynamics aimed at fostering initial participant interaction and a visual ideation exercise using shadows with overhead projectors (see Fig. 3 and Fig. 4). While participant engagement was evident, the extent to which these activities contributed to the game creation process remains uncertain. Potential factors limiting their impact include a lack of clear connection to the jam's overarching theme and insufficient time for participants to grasp the topic thoroughly. As a result, some groups misinterpreted 'The Reunion of the Captains' with the April 25th Revolution. Another noteworthy change regarding the game jam schedules from ECGJ#01 to ECGJ#02-03 is the change of the activities' slated time from early to late morning due to participants' preference for later hours. There was an effort to strike a balance between all the necessary EPIC-WE Project's activities, how they were adapted and delivered to participants, one of the highlights is the pitch sessions with facilitators that happens early on in the game jam, providing ample time to act on the feedback and the ability to course correct without compromising too much of the development time.

EPIC-WE Cultural Game Jam #1 (ECGJ#01)				EPIC-WE Cultural Game Jam #2 (ECGJ#02)				EPIC-WE Cultural Game Jam #3 (ECGJ#03)			
Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4	Day 1	Day 2	Day 3	Day 4
10:00 Cultural Institutions Visit Guided tour	Pitch Sessions	Day 3 Team Check-in Status Report	Game Delivery and Submission Deliverables	Devlog 1 Ideation Pitch Deck	Jamming	Jamming	DevLog 4 Deliverables	Theme Exploration Opresser and Oppressed Shadowplay Ideation	Jamming	Jamming	Game Log 4 Deliverables
11:00					Devlog 2 Team Check-in	Devlog 2 Team Check-in	Jamming				Jamming
12:00	Jamming	Jamming									
13:00	Lunch			Lunch				Lunch			
14:00			Game Jam Wrap-Up Post-Mortem Surveys	Jamming			Showcase Game Presentations	Team Building Ice Breakers	Game Log 2 Pitch Team Check-in		Showcase Game Presentations
15:00	Jamming	Jamming		Devlog 2 Pitch Session	Jamming	Jamming	Game Jam Wrap-Up Post-Mortem Surveys			Jamming	Game Jam Wrap-Up Post-Mortem Surveys
16:00				Jamming				Game Log 1 Team Formation	Jamming		
17:00											
18:00				Devlog 2 Pitch Iteration	Devlog 2 Team Check-in	DevLog 3 Showcase Preview				Game Log 3 Team Check-in	
19:00	Day 1 Team Check-in Pitch Draft	Day 2 Team Check-in Interviews	Showcase Game Presentations								
20:00	Dinner			Dinner				Dinner			
21:00 to 10:00	Jamming (optional)	Jamming (optional)		Jamming (optional)	Jamming (optional)	Jamming (optional)		Jamming (optional)	Jamming (optional)		

Figure 4: EPIC-WE Cultural Game Jam #01-03 Schedules.

2.3 Jam Delivery and Outcomes

2.3.1 Participants

Only the 71 university students who participated voluntarily across the three game jams were considered for statistical analysis. The 54 high school students, whose attendance was mandatory as part of their curriculum, were excluded to preserve the voluntary nature of the sample. University participants registered independently, provided informed consent, and actively chose to engage with the serious theme of the jam.

	ECGJ#01	ECGJ#02	ECGJ#03
Total Participants	26 (100%)	25 (100%)	19 (100%)
Gender	Female 19.20%	Female 20%	Female 52.60%
	Male 80.80%	Male 72%	Male 42.10%
		Non-Binary 4%	Non-Binary 5.30%
		Prefer Not to State 4%	
Age (Average $\pm$ SP)	20.77 $\pm$ 3.08	20.48 $\pm$ 2.26	21.47 $\pm$ 2.06
Age Range	18-28 years	18-25 years	18-25 years
Nationality	PT 84.60%	PT 88%	PT 84.21%
	BR 7.70%	BR 8%	BR 10.53%
	MZ 3.90%	LA 4%	SP 5.26%
	MX 3.90%		
Education Level	HighSchool 76.90%	Bachelors 96%	Bachelors 73.70%
	Bachelors 15.40%	Not Stated 4%	Masters 15.80%
	Masters 7.70%		Not Studying 5.20%
			Not Stated 5.30%

Figure 5: ECGJ#01-03 Participants Sample

2.3.2 Observers and facilitators

During these three game jams, 4 observers from Lusófona University collected the data (surveys, video interviews) and did the observation analysis. The observers prepared all the necessary documentation for participation in these game jams (informed consent for research purposes and dissemination of results), collected testimonies through surveys (Microsoft Forms), and conducted video interviews.

Regarding the game jam guidance, 7 facilitators on ECGJ#01 and 8 facilitators on ECGJ#02 and ECGJ#03 organised and supported the participation activities.

The Lusófona University (UL) facilitators handled the game jam design, including ideation methods, recruitment of participants, preparation of materials, creation/adaptation of research instruments, and data collection throughout the event. Also focused on game design, UL facilitators provided expertise on game mechanics and development strategies, ensuring that participants had both conceptual and technical support. Battleship (BS), a representative from the Portuguese game industry, was present throughout all the events, providing support to the theme selection, games scope (digital format) and to the participants (game development mentoring). Óbidos municipality provided the venue and handled all logistical needs, including accommodation, meals, and materials for all partners involved. They also played a key role in selecting the cultural topics, co-organising the pre-game jam events, providing cultural facilitators, such as curators, historians, and other specialists on the game jam themes, and delivering lectures and documentation on the themes.

All the facilitators participated in the pitch sessions, providing thematic feedback (cultural facilitators) and specific insights into game making process and design choices (UL and BS). The interactions were friendly and engaging, creating a welcoming atmosphere, sometimes marked by more informal moments, such as loud music, or funny moments, where participants could feel at ease with the facilitators, contributing to more horizontal communication. Meals were shared between participants and organisers, fostering a sense of community, although this was not formally measured.

The work of the facilitators proved essential in developing games with greater depth in their thematic approach, which became particularly evident when analysing the success of the games created during the ECGJ#02 compared to those from ECGJ#01 and ECGJ#03. The key differentiating factor was the mentoring provided during that event.

During ECGJ#01 a need for an ongoing presence of the cultural facilitators was identified. This aspect was strengthened for ECGJ#02, where culture facilitators offered continuous support from pre-game jam activities to the event's conclusion. They achieved this by actively engaging with participants throughout the event, doing various check-in rounds with the teams to assess their progress and mainly to help with creative blocks or conceptual issues, which contributed to a deeper understanding of the theme. Unfortunately, due to calendar constraints, ECGJ#03 had a similar lack of cultural facilitators, contributing to fewer projects and some confusion regarding the theme.

These check-ins were also accompanied by pitch sessions, where participants presented their progress and received feedback from the facilitators. As one participant noted:

"The presence of these facilitators made it easier for us to develop something faithful to the lagoon. They shared details about the lagoon's depth, the types of boats found there, and more. I think that if it hadn't been for the guide, we would have been much more out of touch with the subject, because in the eyes of those who don't know or who don't live here, who aren't used to it or who don't have that kind of knowledge or someone to share it with, the Lagoon is just a body of water" (anonymised student name).

The participants stated the difference between exploring a theme online or being able to explore it in the real world, interacting with the environment and the experts (facilitators), and learning about places while being in them:

"Yes, I think at least from what I felt, it was that I could give more value to the theme imposed on our work and also realize that it wasn't as limiting as I thought, that we could explore it at a better level and that we had various paths to follow, not as narrow as the theme was presented at the university" (anonymised student name).

As an example, the games "Puss in Books" and "Paredes de Cor" developed on the ECGJ#01, were a direct result of participants' interaction with Óbidos local culture. In Puss in Books, the player is a cat, as the participants, while exploring around, notice the number of cats living in the village. "Paredes de Cor" is a game inspired by the marked walls the participants observed throughout the entire village, during the visits, resulting in an idea for a game:

"After the visit, we explored the town of Óbidos, and that's where we really started to notice many marked walls. Right at the entrance of the village, there was a sign prohibiting that, and that's when it really stood out and gave us the idea for the game." (anonymised student name)

2.3.3 Developed games

Through the ECGJs, participants created 21 games, plus 11 from the high school, which are excluded from this study. Fig. 6 presents the games developed in each ECGJ, which can be found at their respective itch.io jam pages (<https://itch.io/jam/epic-we-01-obidos/entries>; <https://itch.io/jam/epic-we-02-obidos/entries>; <https://itch.io/jam/epic-we-03-obidos/entries>).

EPIC-WE Cultural Game Jam #1 (ECGJ#01)				EPIC-WE Cultural Game Jam #2 (ECGJ#02)				EPIC-WE Cultural Game Jam #3 (ECGJ#03)			
Game Title	Narrative	Aesthetics	Format	Game Title	Narrative	Aesthetics	Format	Game Title	Narrative	Aesthetics	Format
Book Dweller	no	yes	digital	Birdpedia	no	no	digital	Blue Brigade	no	yes	digital
Ginjurdes	yes	yes	digital	Biz Flamingo	yes	yes	digital	Bufo Catcher	yes	yes	digital
In Search for Words	yes	yes	digital	Blooming Shadows	no	no	digital	Message of the Red Cloves	yes	yes	non-digital
Literature of Defense: Guardian of Óbidos	no	yes	digital	Criminal Fauna Identification	yes	yes	digital	The Clueless Otavio Pinto	yes	yes	digital
Lost in Words	yes	yes	digital	Encyclofishia	yes	yes	digital				
Paredes de Cor	yes	yes	digital	Óbidos Watching	yes	yes	digital				
Puss in Books	yes	yes	digital	Otter Way	yes	yes	digital				
Storyteller	yes	yes	digital	Spirit of the Lake	yes	yes	digital				
Tsundoku	no	yes	digital								

Figure 6: ECGJ#01-03 developed games

The majority of the games demonstrate, through their gameplay and aesthetics, an objective connection to the themes of the game jams, the substantial diminishing number of games from the first game jams to ECGJ#03 is mainly explained by the lower participant numbers and lack of game development experience amongst them (see fig 5.).

2.4 Follow-On Opportunity

Although this aspect is acknowledged within the EPIC-WE project's overarching goals, it has not yet been implemented. As part of the initiative, Battlesheep intends to further develop four selected games originating from various game jams. The objective is to collaborate with the original creators of these games and, alongside professional game developers, refine and produce polished versions suitable for publication on the EPIC-WE website. This work aligns perfectly with the AJF, which foresees further development opportunities for the resulting games. In this specific case, such opportunities could include the development of new business models tailored to small-scale cultural games aimed at supporting the promotion and dissemination of local culture by municipalities and cultural heritage institutions. Moreover, the initiative seeks to foster game development within these communities and leverage games as a medium for cultural dissemination, allowing local traditions and narratives to reach broader audiences and transcend regional boundaries. From Glocal to Global, the ECGJ follow-on opportunity can be a game changer for students, cultural sites, and game companies, disseminating culture through games that can transcend their local roots.

3. Discussion

Among the main objectives achieved at the ECGJ#01, the participants highlighted a greater awareness of and involvement with the culture of Óbidos, learning about creating games for culture and, consequently, learning about creating games in general. In relation to the Game Jam experience, on a scale of 1 to 7, 19.23% of the participants rated it 5, 50.00% of the participants rated it 6, and 30.77% gave it the maximum score. Considering the duration of the game jam, 22 participants (84.62%) felt that the time was adequate, while 4 (15.38%) felt that it should have been longer. Considering the cultural activities organised before the game jam, 22 (84.62%) of the participants considered that these were useful for creating games.

A post-event survey was conducted with ECGJ#02 participants to evaluate the extent to which their goals and expectations were fulfilled. Pre-game jam activities, including a visit from the Óbidos representative on April 12 and a lagoon visit, were viewed as useful by most participants for the ideation process, with 24 (69%) favouring the lagoon visit and 11 (31%) selecting the representative session. Regarding the question of whether the game jam's duration was adequate 25 participants 19 (76%) said "Yes", 5 (20%) felt more time was needed, and 1 (4%) was unsure.

Regarding the perceptions of the ECGJ#03, from the 19 participants, 10 (52.6%) considered that their expectations were exceeded, and the remaining 9 (47.4%) considered that they were achieved. When asked if the perception of the theme had changed with the activities done with facilitators before the game jam, 7 participants (36.8%) answered "No", 8 (42.1%) answered "I don't know", and 4 (21.1%) answered "Yes". This distribution may be explained by the lack of time to reflect on the activity, as it happened on the same day the game jam began, unlike the two previous ECGJs, which allowed more time beforehand. Regarding the duration of the game jam, 15 participants (78.9%) felt that the time allocated was adequate, 3 (15.8%) considered that it should have been longer, and 1 participant (5.3%) didn't know. Among the main objectives achieved at the ECGJ3, the participants highlighted gaining awareness of the importance of the 25th of April and being aware of Óbido's history.

Regarding the Problem Space, it was the presence in Óbidos that, even though the theme ended up being too broad and general, helped participants explore it, having the autonomy to make it more concrete, uniting their ideas with what they saw. The location was highly praised by the roundtable that took place at the end of each ECGJ. The participants enjoyed taking strolls and found the medieval setting inspiring for their game development, and the journey between the village and the space was beneficial for their creative process, highlighting the outside surroundings as greatly beneficial to the creative process, rather than relying on online sources:

"I liked visiting the village. The last game jam I did was at a library, and we stayed locked there almost 48 hours. It was much better here, the atmosphere, getting out of here, visiting the village, taking a stroll. We visited the village for 2 or 3 afternoons, walking around, and especially at night."
(anonymised student name).

The Jam Design presented both successes and challenges. In ECGJ#01, one of the primary limitations was the selected theme, which participants found abstract and overly broad. This lack of specificity hindered meaningful integration into the game prototypes, with several groups struggling to translate the theme into playable concepts. In contrast, ECGJ#02 benefited from key improvements. Pre-game jam activities conducted two weeks prior facilitated more structured planning and enabled participants to begin the jam with greater

clarity and readiness. Additionally, continuous support from facilitators throughout the event provided valuable guidance and contributed to a more effective development process.

According to the Jam Delivery and Outcomes, cultural facilitators effectively initiated collective reflection on the themes, which could not have been achieved through lectures or online information alone. It was the dynamic interactions during the visits that created space for dialogue, which, enriched by each facilitator's personal experience, fostered reflection:

"I think the experience was completely different because we also had a lot of people talking to us, discussing literature with us. In fact, one of the mechanics of our game was precisely inspired by something one of the speakers mentioned to us" (anonymised student).

Given the positive feedback from participants regarding the cultural activities and the presence of facilitators, future game jams would benefit from involving an even greater number of facilitators in the schedule. Improved preparation for the theme would also benefit participants. Providing the theme and relevant background materials in advance would allow teams more time to reflect, ideate, and plan. Scheduling these activities on a separate day or earlier in the event would further support the integration of insights into participants' projects. Finally, the present study cannot yet provide a concrete assessment of the Follow-on Opportunities that may emerge from this ongoing process. Four ECGJs games are in the process of further development since May 2025, with support from the games company Battlesheep, which will generate new perspectives for further studies.

4. Conclusions

The ACJM model, based on the AJF framework, presents itself as a strong proposal for fostering the creation of games with a cultural approach. When facilitators and GJ organisers supported the event by introducing thematically rich content, encouraging students to reflect on game development as artistic expression or educational empowerment, through the guided steps (framework), the results could be cultural value within the game making process. All of the ECGJs participants were engaged on the cultural site, immersed in the thematic, and developed their own projects, using digital games to express cultural perspectives shaped by the local context of the jam. Building on the analysis from previous editions, it becomes evident that the "Jam Design" phase plays a pivotal role in achieving successful game jam outcomes. Overscheduling can undermine engagement by overwhelming or demotivating participants. To address this, a carefully balanced schedule, extended game jam time, delegating research-related tasks to pre-jam sessions, allowing flexibility in pitch timings based on participants' motivation and energy levels, and ensuring active facilitator involvement throughout the event, can significantly enhance results, particularly when participants have prior game development experience.

In ECGJ#03, a shift toward participants with less experience in game development was associated with reduced output, as evidenced by a lower number of games produced and a decline in technical and design sophistication. However, the event was notably successful in integrating students from diverse fields, such as sound design and visual arts, alongside those from videogame development. This interdisciplinary collaboration was positively received by participants and enabled the creation of the first physical game in the series. By adapting to the varied skill sets within the group, participants explored alternative formats and creative strategies to overcome technical limitations:

"We chose to do a physical game based on each person's skills. We had art people, we had a design person, so there wasn't much programming or anything like that. Unlike the other groups, we focused on a physical game to really free people up." (anonymised student).

5. Limitations and Future Studies

This study presents several limitations that must be acknowledged. The most significant is the lack of concrete data from the follow-on phase, which remains ongoing at the time of writing. Moreover, although the research draws from three distinct Cultural Game Jams, this paper focuses specifically on the Óbidos Hub in Portugal. As such, it does not encompass the full range of data collected across the project. This includes qualitative data, such as interviews with participants and facilitators, and gameplay analysis conducted by external playtesters, as well as quantitative data, including demographic information, satisfaction surveys, and playtest results. Future research will include the analysis of game prototypes tested with 50–70 students from undergraduate and master's programmes and high schools. These forthcoming studies are expected to contribute valuable

understanding regarding the long-term viability and broader applicability of Cultural Game Jam models for both creative and educational purposes.

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