Identifying Requirements for Supporting Users in Creating Digital Interactive Cultural Activities for Task-Based Language Learning

Communities, Languages, and Activities App (ENACT)

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The web app is currently being produced at Newcastle University, UK.

CONTENTS

HIGHLIGHTS

What is the aim of this report?
The aim of this report is to present findings following the first-round of studies to understand user requirements for the development of the web app on the ENACT project. These findings relate to participants' digital and linguistic competencies, as well as their activities of interest. The findings will inform both the design of the web app and the organisation and running of the co-production workshops.

Who is this report for?
- ENACT project members who will design the web app and run the co-production workshops.
- Interaction and instructional designers who wish to design products to be used by similar groups of people.
- Researchers and education professionals who wish to gain insights from the requirements of our migrant and host community participants when working together on our project materials.

Who are the participants?
42 migrant and host community members from Newcastle Upon Tyne, UK; Helsinki, Finland; Istanbul, Turkey; and Barcelona, Spain.

What are the procedures?
Participants:
- discussed their cultural activities in relation to ease of learning and teaching the activities to others, and resources needed
- used the prototype cultural activities produced by the project members and discussed potentials for learning the cultural activities and engaging media
- created a simple interactive activity, took pictures and videos, edited pictures and videos, and used 360 cameras
- discussed their social media practices

Project members:
- facilitated the workshops
- took observation notes and pictures, and audio-recorded the workshops

What are the main findings?
- The web app should provide a structure to guide participants during the authoring of activities, thus simplifying the authoring process and ensuring participant-authored activities are of high value to end users. Without such guidance participants are likely to struggle to make sense of the options available through the underlying H5P platform and are unlikely to produce content of high value to other app users.
- Participants may be interested in authoring ENACT activities which reflect cultural activities linked to specific places or times/dates. Ideally, conversations should be had ahead of time to ascertain what activities participants would like to represent in ENACT activities and the co-production workshops organised around the time/place/resource implications.

1. What is the ENACT project about?

In 2018, 22.3 million people of the 512.4 million people living in the EU were non-EU citizens, which poses a major challenge to ensure social integration, but also cultural and linguistic diversity. To address this challenge, this intercultural, intergenerational, and multi-sector project aims to 1) develop Open Educational Resources (OER) that will foster intercultural understanding within and between the members of immigrant and host communities; 2) promote opportunities for intergenerational interaction; 3) engage communities in co-producing materials for the OER; 4) provide support for task-based innovative digital pedagogy offering a real-world, immersive learning experience that brings culture to life; 5) bring a wider focus on the role of European cultural and linguistic heritage; 6) contribute to greater social cohesion; and 7) foster inclusive higher education (HE) systems in the EU.

Our task-based innovative learning pedagogy will involve the development of a responsive web app tailored for the creation of, and engagement with interactive digital media (e.g. interactive videos, branching scenarios and interactive virtual 360 tours). The web app will also provide tools to support the creation of an online community ranging from commenting and voting on content on the platform to sharing and promoting content using existing mainstream social networking tools by providing shareable links. Using the web app, participants will co-create interactive digital artefacts for cultural activities (e.g. sewing, dancing, singing, children's games, henna tattoos, puppet shows, etc), engage with the artefacts created by others, participate in an online intercultural community, and carry out activities of other cultures.

We expect to have direct and considerable impact at a number of levels. The web app, and all project materials will be made freely available for download and use by any migrant and host community in the EU and the world, with an interest in learning about languages and cultures. The web app will be fully transferable and scalable to represent other languages and cultures worldwide, and to be used in formal and informal education. In the long term, we envision wider impact (1) on any citizens of the EU or beyond who wish to learn digital skills, languages, and cultural activities; (2) on any HE institutions and non-profit organisations in the EU and beyond who wish to establish inclusive HE systems; (3) on cultural organisations who wish to promote cultures, and (4) on HE pre-mobility activities as a model for task-based virtual exchange.

This understanding user requirements study is the first step of our project activities to achieve our aims, and forms the basis of the web app design and planning for the co-production workshops.

2. Why do we need to understand user requirements?

We carried out a preliminary analysis intended to gain insights into the competencies, behaviours and desires of our target user group (migrant and host community members). The understandings we derived will inform both the design of the web app (IO 2) and influence the organisation and running the co-production workshops (IO 5).

The insights we derive from this initial 'understanding requirements' study will give us knowledge regarding:
1) what kind and type of cultural activities can be presented on a web app;
2) the type of digital media and the nature of the associated interactivity such activities will require; and
3) the digital tools that are best suited to achieve an active online community.

This will support the creation of an innovative Virtual Exchange involving intercultural interaction beyond words and passive video or audio material by creating and engaging with 'interactive' digital cultural artefacts.

The objectives of this understanding requirements study are to:
1. understand the kind of cultural activities participants would like to create on the web app;
2. identify the technological elements (type of digital media such as video, audio, 360 tours, and type of interactivity such as information links, questions, and branching scenarios) required to best portray these activities on the web app, which will guide the design of its engagement interface;
3. carry out a preliminary appraisal of the digital skills of the participants to ensure that the design of the web app is suitable to the requirements and capabilities of such groups in order to inform the design of the web app;
4. carry out a preliminary appraisal of the training needs of the participants in terms of structuring and creating a task (i.e. the best ways in which the cultural activity can be presented clearly so that members of other communities can carry them out) and in terms of media production capabilities (e.g. video recording and basic image and video editing);
5. understand participants' use of social media networks in their everyday life in order to inform the design of the elements required for the online community interface of the web app;
6. understand the requirements for co-production workshops (IO 5), including recruitment of participants, and planning, organising, and running the workshops.

3. Who is this report for?

ENACT project members: The outcomes of this output will be crucial for the planning, design, and development of the web app (IO 2), and the co-production workshops (IO 5).

Interaction and instructional designers: Other interaction and instructional designers who wish to design products to be used by similar groups of people can benefit from the results of our needs analysis report to better understand requirements of disadvantaged users and similar groups of participants.

Researchers and education professionals: Professionals engaged in education, research, and community organisations can use the report to better understand the cultural and technological skills and requirements of migrant and host community participants when working together.

4. Who are the participants?

The understanding requirements study was carried out in December-February 2020 with a small group of migrant community (immigrants, refugees, and asylum seekers), and host community (e.g. from the public, and/or staff and home students at HE organisations) members in Newcastle Upon Tyne (UK), Helsinki (Finland), Istanbul (Turkey), and Barcelona (Spain). We worked with a total of 42 participants from all four countries (Table 1).

Table 1. Participant demographics

Country	Number of Participants	Gender distribution	Country of Origin
Finland	8	7 female 1 male	4 Finland 4 Russia
Turkey	15	15 female	8 Syria, 7 Turkey
Spain	7	5 female 2 male	2 Spain / Catalonia, 1 Spain, 1 Poland, 1 Hungary, 1 USA, 1 Colombia
UK	11 (+ 1 pilot workshop)	5 female, 7 male	4 UK, 2 Kazakhistan, 1 Sudan, 1 Arateria, 1 Kuwait, 2 Iran, 1 not disclosed

5. What are the procedures?

5.1 Understanding requirements workshops

The understanding requirements workshops in each country lasted around a total of 4 hours including lunch and/or a coffee break. The workshop plan was as follows:

- Introduction and obtaining informed consent - 15 minutes
- Lunch - 40 minutes
- Activity 1: Cultural activities - 30 minutes
- Activity 2: Engaging with interactive media - 45 minutes
- Coffee break - 20 minutes
- Activity 3: Creating content - 90 minutes

Detailed plan for the workshop can be found in Appendix A. The workshop materials and the data management plan can be accessed here:
https://doi.org/10.25405/data.ncl.12230153

During the workshops, participants
- discussed their cultural activities in relation to ease of learning and teaching the activities to others, and resources needed;
- used the prototype cultural activities produced by the project members and discussed potentials for learning the cultural activities and engaging media;
- created a simple interactive activity, took pictures and videos, edited pictures and videos, and used 360 cameras;
- discussed their social media practices.

The project members facilitated these activities, took observation notes and pictures, and audio-recorded the workshops.

5.2 Prototypes created on H5P.org

A series of interactive media was produced; prototypes to be used and tested during the workshops. The aim was to generate feedback on a number of selected interactive options. The interactive media were produced/used for the following four cultural activities:
1. Making a Chinese lantern (in Chinese)
2. Making a shadow puppet (in Turkish)
3. Carving a Halloween pumpkin (in English)
4. Celebrating the summer solstice (in English).

The activities can be accessed on the project website:
https://enacteuropa.com/activities/

The interactive media produced around these cultural activities presents a variety of digital media and options.

5.2.1   Interactive image

This media type was used in both the Turkish shadow puppet and Chinese lantern activities to introduce key vocabulary, i.e. the materials, required to carry out the activity. While only the written words were displayed when the user clicked on each word of the Turkish puppets activity, the Chinese lantern interactive image included a short video for each word which involved how the word was pronounced and a caption showing the spelling of the word (Figure 1).
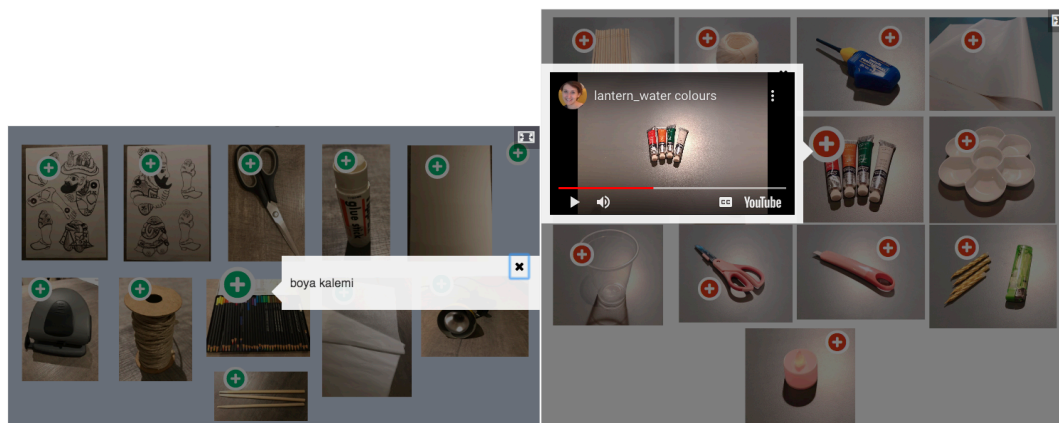

Figure 1 Written words were used to label materials in the Turkish puppetry interactive image (above left), whilst spoken words and a pop up video were used to label the Chinese lantern materials (above right)

5.2.2   Interactive video

The Turkish puppet, the Chinese lantern, and the Halloween pumpkin activities involved this media type. The Turkish puppet demonstrated navigation buttons displayed on the video. For the Chinese Lantern, two branching options were inserted asking the user to make choices on what to do next, which then showed the outcomes of their actions. The navigation bar (play / pause) was disabled. The Halloween pumpkin interactive video included a pop-up for the key words, and pop-ups at each step presenting what is needed to be done in simple words. All videos included captions: Turkish captions were simple instructions for each step. The captions were different from the audio narration. Chinese captions were the same as the audio narration, which were simple instructions. English captions were also the same as the audio narration. The audio and thus the captions include long and complex sentences.

5.2.3   Normal video

This was embedded as part of the interactive video and the 360 picture content types for the Turkish shadow puppet activities. The short video displayed the puppets in action, i.e. a puppeteer staging a shadow puppet play.

5.2.4   360/VR video

This content was taken from the CNN Youtube channel demonstrating an immersive experience of how people celebrate the Summer Solstice at Stonehenge, UK every year. Our participants used Google Cardboard to view this 360 video content.

5.2.5   360 picture

The 360 picture media type demonstrated how three 360 images can be linked together to provide an interactive experience of a place where a cultural activity takes place. The place for the Turkish shadow puppet activity is the shadow puppet museum. The media type allows the user to move between the three rooms of the museum, as well as illustrating augmented interactivity to display additional text, image, or video on the 360 image.

5.2.6   Interactive slides

Interactive slides present an interactive way of presenting background cultural information. While the Chinese Lantern activity presents background information using text only, the interactive slides for the Turkish shadow puppets involve text, images, video, hyperlinks to other external resources, and interactive quizzes.

5.2.7   Drag and drop

This media type was created for the Turkish shadow puppet activity as a way to explore user requirements and preferences in relation to a potential optional assessment activity which can be embedded as part of the materials on the web app.

6. Findings: User Requirements

This report of user requirements are based on the data produced during the workshops for Output 1 in the UK (Newcastle), Finland (Helsinki), Turkey (Istanbul) and Spain (Barcelona) (Figure 2).

Data included observation notes by the researchers, pictures taken of the cards activities, the user generated cards, and recordings of the discussions during the activities. The workshops were conducted in the local languages. Participant quotes in this report are translated by the project members.

Below we summarise our main findings from the workshop, specifically those that help inform the design of the planned web app.

Figure 2 The workshop settings. Clockwise from top left: Finland, Turkey, Spain, UK.

6.1 Findings related to engaging with pre-prepared H5P Content

When engaging with H5P content, users expressed dissatisfaction due to a lack of contextual information conveyed through the H5P content. For example, content was described as very unclear, lacking in meaning (regarding *why* it should be engaged with) and instruction (regarding *how* to engage with it). As expressed in the quotes below, participants in Finland highlighted the lack of introduction to an activity and the lack of connection between H5P content. Participants in Newcastle suggested we use H5P content to present the final output of the activity first to put the subsequent information in context, and that we create clear introductions.

> *"It's not about the introduction, but the whole structure. There is no a story…yes, storytelling is a good word"*
> *"It would be good if they all [digital tools] would have the same template: for example, a short video, what is good with it, what is fun about it, - the introduction, why do I need this, … so there could be a text, some picture, and there come some questions, so you can test if you could learn it"*
>
> *(workshop participants in Finland)*

Whilst this criticism regarding context applies to all H5P content, it was particularly apparent in relation to the interactive video. Participants expressed that videos should be better structured to help users/viewers know what they are doing and why, and what they are aiming at. Other feedback in relation to the interactive video included a suggestion for all text to be supported by audio/video pronunciations, and a request for subtitles to accompany speech in order to help users who do not understand the language. Additionally, there was a request for improved pacing of the video content, and for users to have full control over the video navigation and playback.

"If you are doing for the first time, it is too fast to follow the instructions"

(workshop participant in the UK)

Participants' reported differing levels of engagement between the H5P types, however no clear consensus emerged between the groups of participants regarding the engagement level of each H5P type (Figure 3). For many, videos and particularly interactive videos were among the most engaging and most useful when demonstrating 'how-to'. But again, there are always exceptions as can be seen from the bottom left image in Figure 3 where interactive video was ranked the least engaging and useful in contrast to the other three images. Interactive images were mentioned by some as more useful for vocabulary, while 360 images and videos where useful for showing things and demonstrating context.
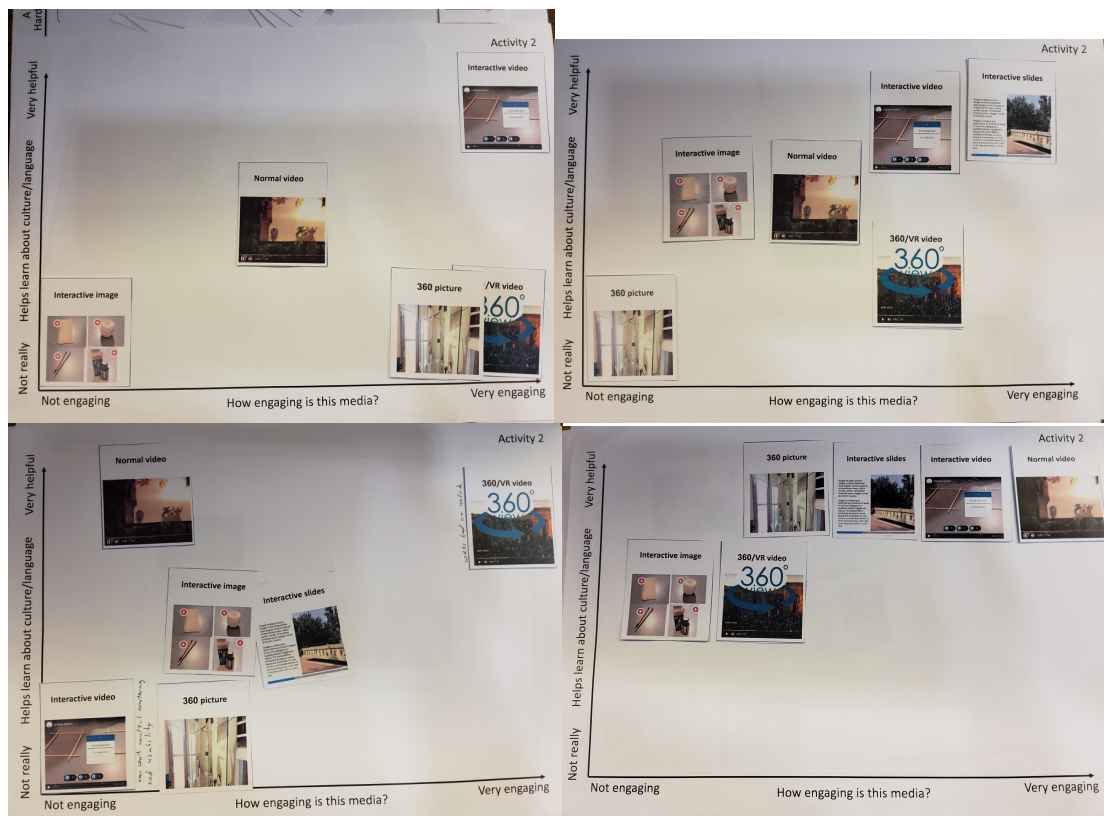

Figure 3 Perceptions of the Finnish workshop participants regarding the engagement level (x-axis) and usefulness of the H5P types (y-axis)

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It should be noted that some participants struggled at first with understanding how to engage with 360 content, but in the case of one particular participant from the Newcastle workshop, once she had been shown how to use the 360 images she found them very engaging. The Finnish workshop reported that participants wanted even more engaging content like game-based content (Figure 4). The Barcelona participants found the 360 VR content engaging initially, but lost interest after five minutes. One participant from Spain mentioned that the 360 VR content made him dizzy and found the sensation quite disagreeable.

Figure 4 A participant from the Finnish workshop trying out the 360 VR H5P content

"Oh, that was cool man, I like the sensation. I was very excited when I tried it."

"I'm very dizzy to be honest. The video it's cool, I really like this... The image it's not very clear, I like it but I think it's the glasses, If I close one eye I could see everything, but if I open both there is no way I can really see what it's going on. Well, I'm done, I feel a bit dizzy."

(workshop participants in Spain: translations in English)

The takeaways from this are that in order to offer an engaging user experience we need to enhance the structure both surrounding and within the H5P content. This could be achieved by adding a higher-level layer at the content creation stage that suggests, or even enforces, such a structure in terms of types and order of interactive media to use, as well as in terms of providing contextual information. We need to also provide better support for walk-up usability so people can feel confident using these fairly new and novel content types without significant amounts of training. Users should be warned of the possibility of nausea or dizziness when using immersive headgear if they have a propensity for these symptoms.

6.2 Findings related to authoring H5P content

In relation to authoring content using H5P, our Finnish colleagues noted the following:

> *"participants came to a conclusion that the picture, video, sound, and
> text should be somehow present in teaching all the activities"*
> *(observation notes from the workshop in Finland)*

However, participants did not immediately see the relevance of all the available content options on the H5P platform. For example, whilst one participant saw the value in 360 video for giving a sense of place (in that case a sauna) others struggled to see the medium's potential.

Figure 5 Participants in the UK editing media in preparation for authoring H5P content

Beyond the suitability of H5P's for expressing meaning are issues around creating the content (Figure 5). For example, participants judged using the 360 cameras as very challenging, as noted by our Newcastle observer:

> *"using the 360 camera to create videos was not as popular. Some
> thought the steps were too complicated. Though, if there is enough
> training, most felt that they can use them."*
> *(observation notes from the workshop in the UK)*

As this step is a necessary precursor to creating 360 image or video H5P content, without careful support the creation of such content may be beyond the abilities of many of our participants. There were also concerns around privacy when capturing 360 content.

> *- It's unbelievable! So it captures everything that happens in the
> room!*
> *- Yes, like Big Brother is watching you*
> *(workshop participants in Finland)*

Participants may benefit from being informed about the anticipated audience for their content. For example, as noted during the Finnish workshop, participants had difficulty deciding how easy/hard an activity would be to explain and resource without knowing the context of the intended users. For instance:

> *"participants talked a lot about who is the target audience; making a
> snowman is easy and there are resources in Finland but not
> necessarily in many other places"*
> *"The participant had difficulties to explain, what could be the most
> interesting or entertaining activity because didn't fully understand
> for whom is the future application and what needs are there".*
> *(observation notes from the workshop in Finland)*

The takeaway message here echoes that of the previous section in terms of the need for an additional layer that provides structure, in this case in terms of thinking about the anticipated audience and context of use, and narrowing down the types of interactive media available to users. The extra level of flexibility and control provided by a very generic tool such as H5P was a source of confusion for some participants. Providing a more goal-focused interface (which in our case on task-based language learning) can help simplify the interface and the range of options available to guide participants into the process of creating relevant interactive media and provide a better user experience for them.

6.3 Findings related to suggested activities

A wide range of activities were offered by the participants. Many of these would have been influenced by the example cards we provided but it is still worth noting that a rough and overlapping grouping of the activities suggested and/or discussed could be as follows:

- Some activities could be classified as 'making things': a snowman, Christmas decorations, cheese.
- Some related to food and drink: Fishing, berry picking, drinking tea, drinking vodka.
- Some as physical activities and sports: Dancing (various kinds), skiing, swimming, playing an instrument (guitar or piano).
- Some related to festivals and religious/cultural practices: Birthday parties, funerals, weddings, religious holidays, praying

Participants expressed a keen interested in comparing activities shared between their cultures. For instance, during the Turkish workshop, participants compared their common cultural traditions and commented on what different parts of culture they would be interested in learning (Figure 6):

"We are quite similar in religious traditions, we are not very (different) in that … but in dancing … For example (addressing to a Syrian participant) you want to learn cooking from us. What else (would you like to learn)? … Dressing?"

(workshop participant in Turkey)

"Interesting discussion between 'birthday' and 'Saint's day' celebration but it was found that there were significant cultural differences."

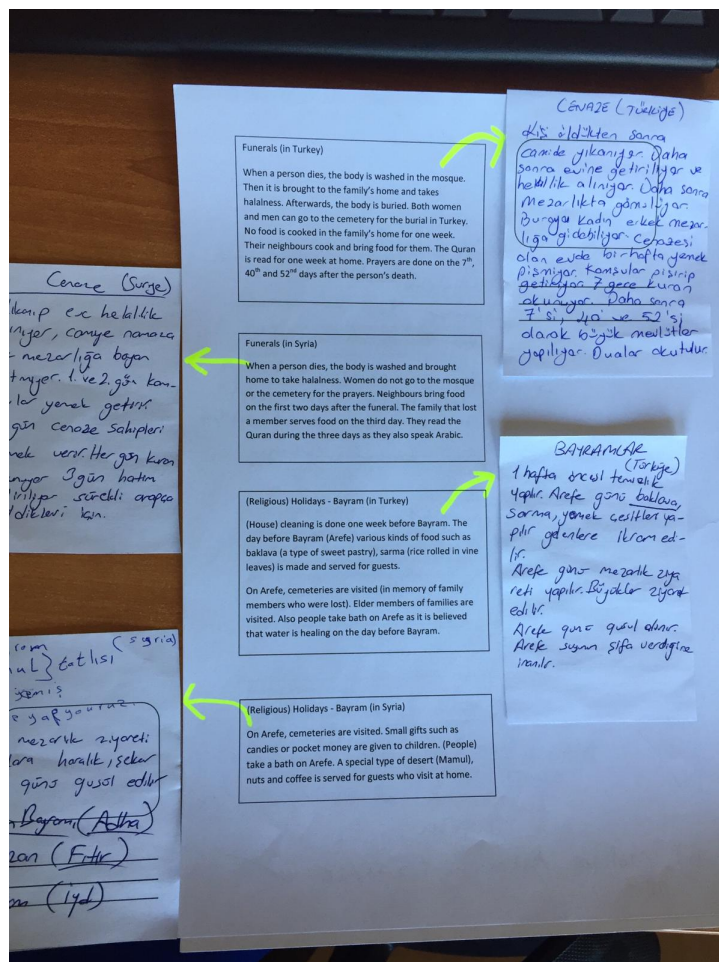*(observation notes from the workshop in Spain)*

Figure 6 Participants at the Turkish workshop compared funerals and religious holidays

This may present an opportunity for us to engage our app users, as instead of asking people to create entirely new and distinct content for the app, we ask people to create content reflecting the subtle differences (and similarities) of an activity from their culture with reference to an existing activity within our app.

The idea that some participants may be uncomfortable 'teaching' activities emerged from the Barcelona workshop. Therefore, it may be helpful to frame authoring activities in terms of 'expressing' and provide a scaffold to support this expression in order to align it with pedagogical aims.

"I really don't know anything about 'teaching'"
                                (workshop participant in Spain)
"The participant was reluctant to give ideas about how to best approach teaching materials"
                                (observation notes from the workshop in Spain)

6.4 Social media preferences

When the UK participants where asked about their level and type of engagement with social media, most participants stated that they did use different types of social media ranging from YouTube to Instagram to Facebook and Twitter (and possibly others). One participant commented that he does not like social media, but apart from that participant, all said that they do read content on social media and about 50% of them contribute as well, either by sharing as is, or posting their own content.

When asked whether they prefer a 'like' feature or a star rating feature, one participant shared her concern that a star rating may have negative consequences so a like button is better and there seems to be agreement with this view. All participants agreed that a comment field on content is needed for our app.

6.5 Evidence of digital and language skills transfer

Despite not being the primary objectives of this report, we observed initial transfer of linguistic and digital skills among the participants as they interacted with each other during the completion of the workshop activities.
The following extracts are from the workshop in Finland demonstrating how participants exchanged words and phrases in Russian and Finnish as they discovered words with similar pronunciation and meaning, and useful phrases.

Extract 1
A: Barhopping!
B: I love it!
A: How it is in Finnish?
B: Baarihyppely
(in Russian the same word - Barhopping/бархоппинг)

Extract 2
A: Kiroileminen! (=To swear in English)
B: It is just perfect! This is "ругаться, ругаться матом"
A: Absolutely right, very relevant also for the Russian-speaking

As workshop participants worked in intercultural pairs or small groups, the following exchanges were observed in relation to digital skills transfer. These salient moments were captured either when participants engaged with a digital task that was new to them, or when they were not familiar with the operating system. Extract 3 was recorded between Finnish and Russian speaking participants during the workshop in Finland while they were engaged in viewing the 360 Stonehenge video on Google Cardboards.

Extract 3
A: So you would need a phone to look at this?
B: Yes, this or that [Google cardboards or VR glasses] and phone to put it there inside
A: And where you can do it?
...
B: Yes, I can show you, look….
A: …Yes, this is impressive, you are almost there [inside the video]

The following quote and observation note from the workshop in Spain indicate that participants' digital skills were sometimes dependent on the operating systems they are were accustomed to on their own devices. These moments created opportunities for the participants to interact with and learn from each other.

"I don't understand this … How did you do it? … Show me … I don't speak Android"
(workshop participant in Spain)
"… had issues understanding how to unblock the tablet and access the main menu as she is normally in contact with iPad platform. … We noted then, that the participants who were used to Androids (versus iPhone/iPads) were more comfortable with the technology"
(observation notes from the workshop in Spain)

7. Conclusions

7.1 Functional Web App Requirements

Based on this analysis, we have identified a core set of functional requirements for the planned web app.

- The system shall offer multi-language support
- Provides an interface for the creation/authoring of H5P-based interactive digital media
- Provides an interface for engaging with H5P-based interactive digital media that has been created with the app reflecting on how similar activities are performed in their own cultures
- Offer social features (commenting including emoticons, voting & sharing) to support community creation
- The system should provide a pedagogical structure to the content creation process instead of the current unstructured functionality and media type oriented interface. This can guide the content creators to produce more useful contents for learners
- Following from the above point, the system should only make available to content creators a subset of the large set of functionalities available in H5P. The focus should be one what supports the creation of meaningful, learning focused task-based language learning activities.

7.2 Non-functional Web App Requirements

- Provide responsive layout suitable for a wide range of screen sizes and orientations
- The system utilises the H5P framework
- The system should constitute a progressive web app (with icon downloadable to a mobile device's home screen)
- The system shall be MIT licensed. This will grant permission for others to reuse our code and is achieved by placing a text file within the code repository with the statement found here https://opensource.org/licenses/MIT

7.3 Conclusions and logistical requirements for the co-production workshops

- Participants' digital skills vary. Most participants in our Output 1 workshops engaged with the creation activities without problems or with some support for the researchers on the specifics of the 'new to them' H5P platform. Competence in digital skills was not necessarily related to cultural background, age, or gender, but the operating systems participants were familiar with appeared to have an impact.
- Each pair will need a quite space for the co-production activities as noise from other pairs will interfere in the recordings.
- Clip-on microphones for pairs will not be appropriate to record audio during the workshops because cables might interfere, and wireless connection might not be reliable. Dictaphone recorders for each pair would be more suitable.

- Facilitation from Higher Education students is key to ensure the quality of the outputs, and to preclude any potential cross-cultural conflict.
- Inter-generational pairs may also need special logistical requirements. Unfortunately we were unable to recruit any intergenerational pairs for our workshops at this stage. A different recruitment strategy will be required to access these groups.
- Each cross-cultural pair might need to be accompanied by a translator.
- A list of cultural activities can be prepared as starting points at the beginning of the workshops to facilitate generation of ideas.
- Incentives for participation (e.g. vouchers) will assist in recruitment.
- Childcare needs to be offered especially for participants from migrant populations.
- Impact evidence collection will take at least 1 hour before the workshops begin and 1 hour after they conclude. It would be best to have a creative approach to measuring impact and incorporate evaluation as part of the workshop activities.

Appendix A

Output 1 Workshop plan

Preparation:
1. At least two researchers present throughout
2. 2 X audio recorders (We will audio record the whole event)
3. 4 pairs (intergenerational, or intercultural) of participants

Space: everyone sitting around a large table/circle in pairs. Some activities are in pairs, some in small groups of 4 (2 pairs), and some whole group. The space layout needs to be suitable for this. Each pair needs enough space/a table (they'll work together with cards/A2 sheets & tablets).

Activity 1:
1. Put participants in 2 groups
2. Print 2 X A2 sheets, print 2 X activity cards
3. Print 1 observation sheet per researcher

Activity 2:
1. 5Xtablets (test the tablets in advice, they may need to be set up, test how the activities on the web browser of the tablet work)
2. Print 2 X A2 sheets
3. Print 2 X activity cards
4. Print 1 observation sheet per researcher

Activity 3:
1. 5X360 cameras,
2. 5Xtablets (1 per pair) - Youtube app installed and logged in to project trial account, 360 camera app installed, H5P project account logged in, video editing app installed on all tablets
3. 10XGoogle Cardboards
4. Print 1 observation sheet per researcher
5. Print 1 Instruction sheet for Activity 3.1 per participant
6. 5-10 mobile phones (Participants can use their own device or the researchers' phone. Phones need to have the Youtube app and the Google cardboard app. You scan the QR code on the Google Cardboard to download the app. If participants don't want to do this, or if it is taking too much time, use your own phones in Google cardboards for participants to try it in turns. Make sure your phone is ready (apps installed, and view the 360 video beforehand)

Task handouts for the participants may need to be translated, or partners may need a number of interpreters in the room.

Suggested program (total of 4 hours including lunch and a Coffee break)
- Introduction and handing out consent sheets 15 minutes
- Lunch40 minutes
- Activity 1: Cultural activities30 minutes
- Activity 2: Engaging with interactive media45 minutes
- Coffee break20 minutes
- Activity 3: Creating content90 minutes

1-Understand the kind of cultural activities (30 minutes)

Group-based. Participants work in groups ideally of 4-5 each..
Material: Cards and the (difficulty - resources sheet sheet)
Each group of participants is given a set of cards including

- A number of cultural activities that are process based (e.g. knitting, playing cricket, dancing)
- A number of cultural events (e.g. wedding, engagement, birthday)
- A number of cultural sites and associated cultural activities (e.g. Pyramids - riding a camel, Bedwain tent - Arabic coffee making,)
- And a number of empty cards for participants to add to

And an A2 sheet of paper with two axes. Horizontal "ease of explaining the activity', and number and availability of resources involved.

Activity 1.1 (10 minutes): The participants create new cards (drawing and/or text) and if appropriate state the culture that they associate it with (this bit can be optional). This must take no longer than 10 minutes so by 10 minutes, stop with whatever cards you have.
Note: Make clear that what we have provided are just examples to give a sense of what a cultural activity/even/site can be and that the goal of the activity is for them to propose what they think are the most important ones for them. They can provide as many as they want

Activity 1.2 (20 minutes): Card placement led Focus group
For each card, use the cards they created, and only the ones they found interesting from the pre-created ones.

1. First ask the participants to place it on the 2D axes in terms of what they think as a group as to how easy it is to explain/teach the activity on one hand and the number and availability of resources needed to carry out the activity (e.g. no resources for dancing, but very specific tools for Cricket)
2. Why do you think this is an important card to include
3. Discuss the cards the location of the card on the 2D plane (i.e., no of steps and resources)

Then in general (after all cards are discussed)

4. What activities would you like to learn (whether on the cards or not),
5. Which activities do you think tell you more about people from different cultures and their languages?

Feel free to ask any follow-up questions emerging from the discussion

Data collection
For both activities and the focus group

1. Each group should be audio recorded separately (we need this in the consent form). And for the focus group, place two audio recorders on two sides to ensure good audio quality.
2. Each group needs to be observed by a member of the research team and notes taken during the observation
3. Created cards are to be collected as data
4. Pictures taken of the outcome of Activity 2 as this will be treated as data

5. The audio of the focus group is very important as well as that of the discussions around Activity 2.

2-Engaging with interactive media (45 minutes).

Activity 2.1 (30 minutes) Ask participants to **work in pairs to** engage with the media on activities at www.enacteuropa.com
Which will engage them with the following type of interactive media

1- Interactive images
2- Interactive video
3- Image sequencing (image drag and drop)
4- Interactive 360 image
5- Interactive slides
6- watch a 360 VR video (Stonehenge example https://youtu.be/_RyqU1r1Fmk)

Activity 2.2 (15 minutes): Focus group and card placement
Ask participants to place the cards on the engagement-usefulness sheet while having the following discussion for each card while it is placed
   1. Why did you think this type of media was (not engaging/engaging)?
   2. Why did you think this type of media was (not helpful/very helpful) in learning about culture?
   3. Ask more about the video interactivity, what did they think of it, useful, confusing, what type of interactivity they prefer?
Then overall,
   4. Which of these would you rather use to learn about a certain activity/culture?
   5. Imagine you will do one of these activities yourself. Which one can you do?
   6. Ask about preferences for subtitles, navigation (moving between different steps in puppet video, branching option in Chinese lantern video), and text/video pop-ups for vocabulary materials.

Data collection
- Observe their interaction with media (user observation sheet) and particularly
    o   Where they able to engage with all media without problems?
    o   If at all, at what points exactly did they find difficulty, struggle or ask for help? If you observe such cases, do ask them about the reason they found difficulty at that activity.
    o   How comfortable were they in using the hardware(e.g. Tablets and VR)
- Audio recording of the discussion
- Pictures of the prioritized cards

BREAK (20 minutes)

3- Create media and H5P content (working in pairs)

At the beginning tell participants that they can ask for support if they struggle with any of the activities.

Activity 3.1 (10 minutes - pair activity) Media capture and edit.

Pictures (taking and editing)
- Take a picture using the tablet camera tool of a side of the room without people, then take close up pictures of one objects from that area.
- Crop the objects pictures to keep only the object of interest and save it
- Rotate the close up picture first in 90 degrees clockwise and save it, and second by 45 degrees and save it.

Activity 3.2 (30 minutes - pair activity) using H5P

As the participants to follow the instruction sheet for the following activity
Create an image with hotspots
- Upload the picture of the room that you've taken
- Add hotspots that show the name of the object and the picture of the close up object that you've photographed

Optional (10 minutes if there is time) For the groups that finish on time, give them 10 minutes to either do the video activity, or record a 360 video
- Record a short video (1-3 minutes) of someone writing at least 8 letters of their language's alphabet
- Crop the video to keep to remove the first and last letter keeping only 6 letters
- Upload it to YouTube

Focus group (40 minutes)

Technical aspects: Take one card at a time. And ask
1. What did you think of this activity?
2. Please place on this sheet based on how easy/difficult you thought it was and whether you needed help with that or not. Why did you place it here?

Then in general, ask them about what they thought about the activities they have carried out and ask
3. Which one you liked the most and why?
4. Which one you found most challenging and why?

Social media use:

Now move to a different topic and that is social media use.
1. In your everyday activities, what type of social
2. media do you use (explain what social media is: Facebook, Twitter, Instagram, snapchat and communication tools such as WhatsApp and Messenger).
3. How often do you use social media?
4. Ask about the nature of their participation in such networks
   a. Do you normally just 'like' content or do you comment as well?
   b. Do you like taking part in discussions in comments?
   c. Do you create your own content, share content, or just read?

    d. If you share content, when do you share content? Why do you share contents? Do you share with public or just friends? Who normally creates the content that you share?

    e. If you create content, do you just use text, or pictures, or video?

Any other questions based on the discussion?

Data collection

- Observe or video record the pairs particularly focusing on moments of struggle in using the technology (use observation sheet). Feel free to ask them about their points of difficulty while working. Particularly look at
    - Where they able to engage with all media without problems?
    - If at all, at what points exactly did they find difficulty, struggle or ask for help? If you observe such cases, do ask them about the reason they found difficulty at that activity.
    - Ask if they felt dizzy using VR or not?
- Audio record the focus group and take pictures of sorted activities

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