

THE O-CANADA MOBILE APP

RECOMMENDATIONS ON HOW TO MAKE A GOOD USER EXPERIENCE EVEN BETTER

Improved app design to assist refugees for
a successful resettlement to Canada



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IOM is committed to the principle that humane and orderly migration benefits migrants and society. As an intergovernmental organization, IOM acts with its partners in the international community to: assist in meeting the operational challenges of migration; advance understanding of migration issues; encourage social and economic development through migration; and uphold the human dignity and well-being of migrants.

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CLEAR Global's mission is to help people get vital information and be heard, whatever language they speak. CLEAR Global helps partner organizations to listen to and communicate effectively with the communities they work with. This work is informed by research, language mapping and assessments of target populations' communication needs. CLEAR Global also develops language technology solutions for community engagement.

For more information visit CLEAR Global's [website](#) or contact them at info@clearglobal.org.

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EXECUTIVE SUMMARY

The O-Canada (“Orientation-Canada”) Mobile Application is a learning tool for refugees who resettle to Canada under programmes of the Department of Immigration, Refugees, and Citizenship Canada (IRCC). The App was developed by the International Organization for Migration (IOM) and its Canadian Orientation Abroad (COA) programme. COA has been providing pre-departure orientation and information to refugees since 1998. The App reinforces the work of COA and is available in eight languages (English, French, Spanish, Arabic, Dari, Kiswahili, Somali and Tigrinya) for [iOS](#) and [Android](#) devices. It also works offline, which is especially useful for people with little or inconsistent internet or data connectivity. The App was launched in English in June 2021, and in the other language versions in November 2022.

The main objective of the O-Canada Mobile App is to provide “on-demand learning” to better prepare refugees for resettlement. “On-demand” means that people can access the information at all times. In this case, refugees can learn where and when they want to, not only in the Canadian Orientation Abroad (COA) sessions led by IOM staff. The App’s content is similar to the COA sessions, providing pre-departure information to help refugees transition and become active members of Canadian society. The COA sessions are activity-based and participant-focused; the App reinforces this interactive format and adds a gamifying aspect to keep users engaged. The App helps people recall and reinforce the information they received during the COA sessions.

The App provides relevant, accurate and timely information to refugees, helping them make informed decisions and overcome challenges to integration in Canada. For example, the information can help make it easier for refugees to understand cultural norms and join the labour market. The App is particularly important in locations where the Canadian Orientation Abroad (COA) programme cannot provide in-person, pre-departure orientation sessions.

[A study on people’s access to and ability to use digital devices \(“digital inclusion”\)](#) in the COA programme found that most refugees who were resettling owned a phone; 80 per cent of the refugees owned a phone and 95 per cent of those who did not said they could access someone else’s phone (Reid, 2021). The potential user base for the App is therefore significant. However, we must understand that in some cases, refugees have little or inconsistent internet or data connectivity. This makes the App’s offline access especially important. With a better understanding and improvement of usability of the App, it could be beneficial for a large number of COA programme participants.

To support IOM to improve the user experiences (UX) of the O-Canada Mobile Application, CLEAR Global conducted usability testing. The App was tested in five languages (Arabic, Dari, Kiswahili, Somali, and Tigrinya) from January to February 2023. A total of 52 refugees participated. The testing methodology was in-person in Ethiopia, Kenya, Lebanon and Tajikistan, and remote with people in various locations.

The key findings from the usability testing lead to design recommendations – both of which support IOM to improve the user experience of the O-Canada Mobile App, and increase the user base for the App.

The key findings which support the recommendations for design improvement are:

A. **Overall satisfaction with the app was high.**

All 52 participants in the user study said the App is comprehensive, clean, and uncluttered. Almost all (51 of 52) participants described the gamified learning as exciting and engaging. All said they would recommend the O-Canada Mobile App to any friends in the process of resettling in Canada.

B. **Unclear navigation and missing instructions need to be improved.**

Participants described a major pain point as being a lack of clarity on how to navigate between screens or access features or content. These comments were similar across all language versions tested and did not change based on a person's digital literacy level.

C. **Multilingual usability is not yet optimal.**

Slow download speed for versions other than English was a significant problem. Participants in the user study found some confusing terms, mistranslations, content still left in English, or names left in English and French without explanations. This applied to terms specific to a Canadian context and translations of navigation-related terminology. Some participants wanted to easily switch between languages, which the App does not yet allow users to do.

D. **Promising features are not well-known or intuitive.**

In general, participants said that the App was easy to use. But only a few participants could intuitively locate some of the App's most enticing features, including learning and progress, and adding additional users. Features were either not in the obvious place, or required navigation actions such as swiping that almost no participants were familiar with doing.

E. **The offline mode of the App has strong potential but is not obvious enough to users.**

None of the participants knew about the App's offline option (which lets people use the App even when the phone is not connected to the internet or data). However, when told about it during testing, all participants had a very positive reaction.

Summary of recommendations for user experience design improvements:

1. **Improve the multilingual content.** Support language preferences, fix terminology and translation.
2. **Make key features more visible and intuitive.** Simplify and add options to the gamification feature, highlight key features and improve the onboarding experience.
3. **Improve user journey.** Make download speeds faster, fix technical errors and make navigation more intuitive.
4. **Improve accessibility and inclusion design features.** Design for people with disabilities and low literacy levels to increase usage.

METHODOLOGY

CLEAR Global conducted the research using a qualitative and exploratory approach. During the testing CLEAR Global researched:

- Usability issues during onboarding.
- Ease of navigation through the gamified activities.
- Whether participants understand and can use the App offline.
- Key pain points and suggested improvements.
- Areas that provide a positive user experience.

Based on initial discussions with IOM to better understand the main target audience for the App, CLEAR Global and IOM identified the following participant criteria and sample size:

- **Participants should be between 18 and 44 years old.** The focus was on age groups 18–30 and 31–45. The 45+ group was included but not prioritized, due to concerns they might not meet the threshold for basic literacy and digital literacy.
- **The study should focus on speakers of the following languages:** Arabic, Dari, Kiswahili, Somali and Tigrinya (the App supports more languages but the study did not aim to include these).
- **Participants should own a mobile phone and have basic literacy and digital literacy.** To assess digital literacy, participants were asked about phone usage habits and familiarity with mobile technology. To assess basic literacy, participants were observed to see how well they could understand a text in their preferred language. By combining these two methods, people with the skills needed to participate in the study were identified.
- **The target sample per language was 12 participants to represent a mix of gender and age.** In usability research, a sample size of 5 is typically sufficient to identify the majority of usability issues that are likely to affect a larger user population. This is because usability issues tend to be relatively consistent across users and are often discovered by the first few participants in a study (Nielsen and Landauer, 1993; Six and Macefield, 2016). However, we expanded the number to also cater for the two modalities (in-person or virtual) as well as the smaller sample of 45+ participants.

Recruitment of participants

IOM, through its regional offices, supported CLEAR Global researchers by helping to engage participants. CLEAR Global developed screening criteria with a series of questions to assess people's language preferences, digital literacy, general literacy, and determine the age group. This process ensured that only people who met the desired basic qualifications were chosen for the study. IOM also identified target user groups for each language version of the App. For example, refugees from the Democratic Republic of Congo currently were the main target audience for the Kiswahili version and refugees from Afghanistan were the main target audience for the Dari version. The Syrian community was identified for the Arabic version of the App, refugees from Eritrea would be best placed to participate in Tigrinya. Lastly the Somali version would be tested by the community of refugees from Somalia.

Table 1: Demographics of the participants

App language	Country / countries of origin	Total	Male	Female	Basic literacy	High literacy	Basic digital literacy	High digital literacy
Arabic	Syrian Arab Republic	12	6	6	5	7	6	6
Dari	Afghanistan	14	7	7	8	6	6	8
Kiswahili	Democratic Republic of the Congo and Uganda	5	3	2	2	3	4	1
Somali	Somalia	12	5	7	10	2	9	3
Tigrinya	Eritrea	9	6	3	4	5	7	2

Age groups:

- Out of the 14 participants interviewed in **Dari**, 9 belonged to the 18–29 age group, 3 were in the 30–45 age range, and only 2 were 45 years old or older.
- Among the **Somali**-speaking participants, there were a total of 12 individuals from Somali nationality, with 4 participants in the 18–29 age group, 7 participants in the 30–45 age group, and 1 participant who was 45 years old or above.
- For the **Arabic**-speaking group, there were 6 participants in the 18–29 age range, 4 participants in the 30–45 age range, and 2 participants who were 45 years old or older.
- In the **Tigrinya** group, there were 4 participants each in the 19–29 and 30–45 age groups, and 1 participant who was 45 years old or above.
- Lastly, for the **Kiswahili** group, there were 2 participants each in the 18–29 and 30–45 age groups, and 1 participant who was 45 years old or above.

Usability testing

CLEAR Global conducted usability testing of the O-Canada Mobile App with 52 participants. This included virtual sessions and in-person sessions on IOM premises in Ethiopia, Kenya, Lebanon and Tajikistan. For each participant, the modality of the testing matched the modality of the COA orientation sessions. That is, if a person attended the COA session in-person, then the testing was also in-person. It is important to note that this was the first time the O-Canada App was externally tested for usability.

The App is fully developed, offering a variety of features and content. Therefore, CLEAR Global used 90-minute exploratory, moderated (guided) sessions. This allowed for enough time to get participants’ feedback on both the predefined list of core features and design aspects to test, and any other comments they may have had. Researchers were mindful of the fact that participants in the study may be living in precarious situations and that taking time to do a usability test was already challenging for them. At the start of each session a short interview was conducted to confirm the participation criteria and gain a more nuanced understanding of language preferences, literacy, and digital literacy (see Table 1).

CLEAR Global hired UX researchers to conduct the usability tests. UX researchers must be first-language speakers of the language version they guided testing sessions for. Two UX researchers were hired for each of the five languages in scope, Arabic, Dari, Kiswahili, Somali and Tigrinya. Researchers guided each participant through 11 predefined tasks in the 90-minute testing session, gauged user satisfaction, and noted observations, feedback, and pain points.

Due to the exploratory nature of the usability testing, CLEAR Global was able to observe how participants approached language choices, and how these insights can expand understanding of the language needs of target users. Testing specific content and its translations was not the goal of the study. However, pain

points regarding translations naturally arose during testing when it affected the user experience; this qualitative data is provided in the report to support IOM to improve the App.

Prior to the starting of the usability test, each participant signed a consent form. Participants were also given an information sheet with the purpose of the study and contact information. Researchers also addressed questions and concerns of the participants at this point. The researchers explained to participants that this study is completely voluntary, and that they are free to withdraw from the session at any time without giving a reason. Feedback from participants and the results of the usability testing tasks were noted anonymously. Participants were also reassured that any feedback provided during testing would not affect their resettlement cases. The participants were not given any monetary or other incentives. However, they were all compensated for transportation costs in locations where appropriate. This was agreed on with each local IOM office as each location had different factors to consider regarding mobility of the participants.

Focus group discussions with COA facilitators

CLEAR Global held two online focus group discussions with six Canadian Orientation Abroad (COA) facilitators who provide orientation sessions for refugees resettling to Canada. Though the O-Canada Mobile App is not the focus of COA sessions, facilitators share some information about the App with attendees and hear comments and questions from potential users. Insights from these interactions could be used to improve the App. The COA facilitators who participated in the focus group discussions work in Canada, Ethiopia, Israel, Kenya, Lebanon and Tajikistan.

Limitations

The target of 12 participants per language could not be met for Kiswahili and Tigrinya. For the Kiswahili target audience, it was difficult to find Kiswahili speakers willing to participate who read Kiswahili well enough to choose Kiswahili as their preferred App language while the Tigrinya speaking community that took part in virtual COA orientation sessions (one of the criteria for participation) was hard to reach. The Dari- and Kiswahili-speaking participants who could not read their respective languages well enough, preferred to use the App in English or French. However, this did not affect overall test results, as the recommended minimum threshold for usability testing of five participants was still met (Nielsen, 2000; Six and Macefield, 2016).

In both cases, IOM staff tried to help researchers find solutions – but none were possible within the timeframe of the study. For Kiswahili speakers, the IOM office tried to find participants in the United Republic of Tanzania but was unsuccessful.

KEY RECOMMENDATION 1: IMPROVE MULTILINGUAL CONTENT

1.1 Support language preferences

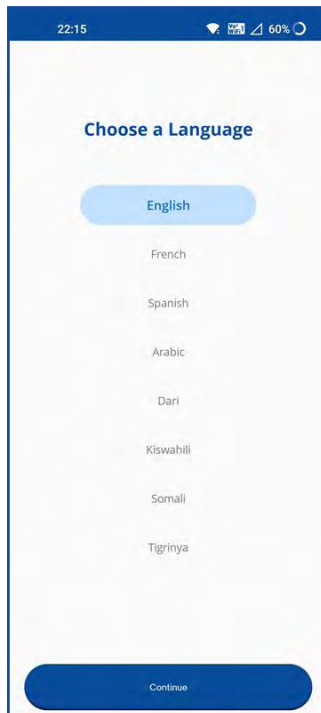


Image 1 - Language selection

All participants were able to select their preferred language version during onboarding of the App. However, Arabic and Somali-speaking participants who did not understand English found this challenging since the language selection page was in English (see image 1). Participants who did understand English found the language selection easy.

Some participants chose to use the App in a language that is different from the one they had been invited to test (assumed as the preferred language of the user). Some participants were more comfortable speaking the language used in testing but reading or writing another. Four of the five participants originally identified to test the App in Kiswahili (in Kenya) and 10 of the 14 participants identified for Dari (in Tajikistan) used the App in English or French instead of Kiswahili or Dari. Some participants wanted the option to switch between languages without creating a new profile. One participant misunderstood the purpose of the language selection and chose English because they thought the App would teach them English.

Participants in several locations reported that the languages available did not include all of the key languages used in their community. For example, the App is available in Maxaa Tiri (Northern Standard Somali), but there are several dialects of Somali. Maay Somali is the second most commonly

spoken dialect of Somali; communities that speak Maay Somali may not understand Maxaa Tiri well or at all, and vice versa. Four Afghan participants spoke Pashto as a first language and said they would prefer a Pashto version. Some participants from the Democratic Republic of the Congo wanted Kinyamulenge, their first language.

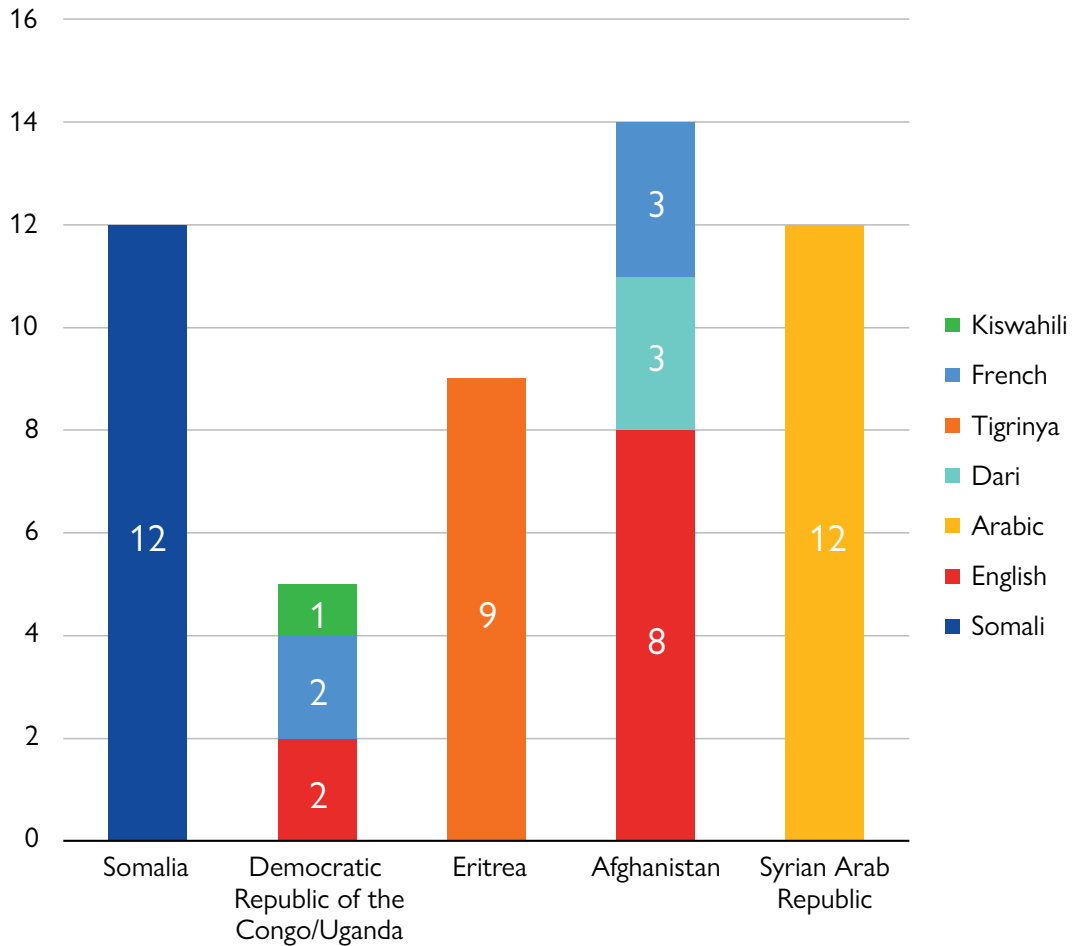
Designers of apps that support refugees should be mindful that refugees in the same location may have different language preferences. Understanding and addressing these preferences can be challenging. In some locations, information about language use does not exist, is outdated, or is of poor quality (CLEAR Global, 2022).¹

Furthermore, refugees may have gone to school in a language different to their preferred language of communication or the language of their current location. This means they may be more comfortable reading and writing in one language but speaking in another. A good practice would be for IOM to collect [language use and communication data](#) in locations where the COA is provided. IOM could use this information to inform app development and improve multilingual usability. For example, by highlighting dialect preferences and differences and indicating where preferences for spoken and written languages differ significantly. Doing this would help IOM strategically launch new language versions and expand the user base.

¹ CLEAR Global's *Global Language Data Review* assesses the quality and accessibility of language data for 88 countries.

Graph 1: App language selection by country of origin

Some participants preferred to use the App in a language different from the one that was assumed to be relevant for them.



RECOMMENDATIONS

- **Language selection: write each language name as it is known in that language.**
- **Make it possible for users to switch between languages while using the app.** For example, a language “toggle” option available on each screen could be one way to solve this.
- **Add more audiovisual content**, such as videos, voiceover and the option to have text read aloud. This helps users who may be able to speak and hear their language of choice well but not confidently read or write it.
- **Ask target users about their language preferences.** Use this information to design new language versions and understand possible usability issues for users who speak different dialects.

1.2 Fix terminology, translation and other linguistic errors

Generally, participants were confused when translations were incorrect or incomplete. Some participants did not recognize some specific terms.

In some cases, sections of text had been left in English. This meant that participants who could not read English did not understand what to do. For instance, an Arabic-speaking participant pointed out that the quick tour settings tab and the Overview of Canada unit are in English (See image 2). Somali language-speaking participants reported confusion on the Resettlement Programme page under the first week in Canada as the title “Resettlement programme” is in English (See image 3).

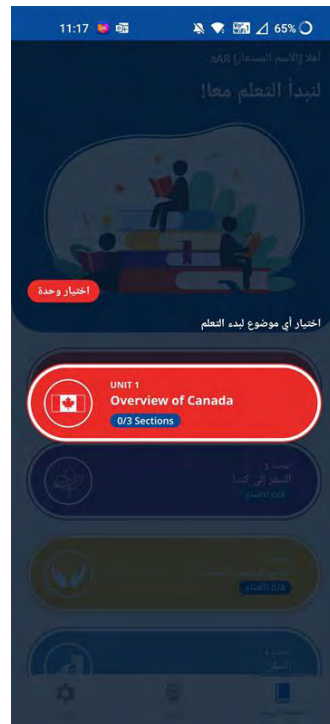


Image 2: Untranslated quick tour section



Image 3: Untranslated title for Somali language

Participants were not able to easily understand some terms that are specific to the App. Examples include “Next step” and “Nickname”. Participants reported this problem in several languages. All participants using the Arabic, Dari and Kiswahili languages said the translation of “Nickname” was hard to understand. In Kiswahili, “Nickname” was translated as *Lakabu*; even though the translation is technically correct, it is not commonly used in Kiswahili, so participants needed help to understand it. One participant suggested we change the label to *Unaitwa nani?*, meaning “What is your name?”.

In other cases, the App did not translate abbreviations or did not explain them fully. In Dari, participants were confused by abbreviations (see image 4). Participants were confused by this and by incorrect translations. Also, in Dari, the button to see learning results was labelled “Control” instead of a word in Dari meaning “View” (see image 5).

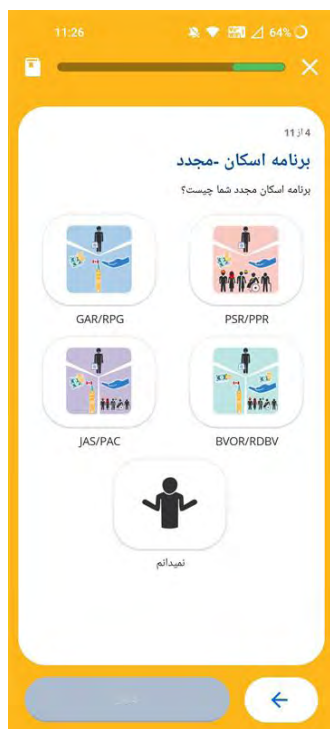


Image 4: Untranslated abbreviations for Dari users



Image 5: Incorrect translations on Dari

Overall, participants found most of the language clear. But, even when the translation was correct, sometimes participants found the text too complex or too long. For example, two Tigrinya-speaking participants said sentences in the video transcripts of the Supports and Services sections are overly lengthy and complex. Consequently, they appeared disinterested in reviewing these passages. Another example is the transcript in the “First weeks in Canada” section. One participant did not understand the term “resettlement”, and all Kiswahili participants did not understand several words related specifically to Canada (even when the words were correct translations). Examples include “maple leaf”, “beaver”, “skating”, “poppy” and “indigenous”. One participant was confused by the image of someone sledding.

Participants also were frustrated or had to read very slowly due to challenges with specific languages.

For example, the Arabic language does not have hyphens. This made it difficult for some participants to find the App in a mobile application store (because they spelled its name without the hyphen). Some Dari-speaking participants said that they were annoyed by key terms that were in Farsi, not Dari. For example, the word for “computer”. The two languages are very similar in written format, but there are **differences** in spoken format and for certain words (TWB, 2017). For example, some key terms like “computer” were translated to Farsi, not Dari. Some participants were annoyed by this.

RECOMMENDATIONS

- **Make sure that all content is translated.**
- **Label buttons, images and icons with clear and short words or phrases.**
- **Use plain language.**² This helps users read more easily and faster and can help with understanding. Plain language is especially useful when people use the App in a language that is not their native language.
- **Test keywords and terminology used in the App with target users.** This will improve translations and help users have a better experience of the App.
- **Explain any complex words, or specific words related to Canada or resettlement.** Do this on every page where these words appear. Use features like pop-up or hover definitions.

² See CLEAR Global/TWB's guide to plain language here: https://translatorswithoutborders.org/wp-content/uploads/2020/04/Plain-Language_Write-Clearly.pdf.

KEY RECOMMENDATION 2: MAKE KEY FEATURES CLEARER, MORE VISIBLE AND INTUITIVE

2.1 Fix minor problems with gamification aspects to improve already popular features

Almost all participants (51 of the 52) said they were excited about the gamified learning experience. However, there are a few minor problems with some aspects of the gamification. Fixing these problems would be an “easy win” to improve the user experience and keep users coming back to the App.

All participants said they enjoyed gamification features such as: matching, selecting true and false, and selecting options from a picture.

However, they reported that carousel activities and tapping the dots were not intuitive. Only one participant among the 52 figured out they could swipe on the carousel activities. In some pictures, there are dots that users can tap to get more information. But all participants did not figure out that they should tap the dots. This was because the dots did not stand out in size or colour. Participants were frustrated about this and sometimes would stop using the App (see image 6). One Kiswahili participant clicked “Saskatchewan” on the map and was redirected to the French version of the map, which he did not understand.

All participants also reported being frustrated by the question-and-answer feature. Some participants felt irritated that there was no “I don’t know” option as this caused them to be stuck at this activity. Some questions also required more than one answer, but it was not clear that users need to select more than one option. In such cases the participant was unable to progress to the next activity; some participants said this slowed them down when navigating the App. All participants said these multi-answer questions were too difficult and reported being frustrated that they could not proceed. Participants also were confused because sometimes questions were mixed in with information.



Image 6: Map with tap the dots

Some participants could not identify video activities – they thought the videos were just images. Reading a video transcript does not activate the Continue button, and the transcript Close button was not easily visible. This left participants stuck with no idea on how to close. Some participants said this was another reason they could not proceed sometimes.

Lastly, participants said that some content was too small to read or see clearly. For instance, the maps were very small, and participants tried to pinch and zoom the map to enlarge, which they could not. These sizing issues caused some participants to stop using some of the gamification features.

RECOMMENDATIONS

- **Keep the popular gamification features and add more of them.** Reduce the ones that cause user confusion. Adapt the Quick Tour to cover the most common issues, such as carousels and tapping the dots.
- **Put simple instructions at the top of games,** such as “match the correct pictures” or “select all that apply”.
- **Give users an option to skip questions,** and to revisit unanswered questions at the end if they want. This would improve users’ satisfaction and keep them more engaged and even avoid that they abandon the App altogether.
- **Show results at the end of each section,** not just per question. Participants said that would better show them what they learned and increase their motivation to keep using the App.
- **Make the format of content clear** (especially video), perhaps with icons such as a play button.
- **Write “Question” before questions** to differentiate from informational text.

2.2 Improve the onboarding and Quick Tour to help users avoid confusion

Not a single participant was able to access all of the carousel onboarding screens. This was because participants did not realize they had to swipe through the content and click on the continue button. Therefore, participants missed important information about what the App offers and how to use it. Ten participants were able to find some of the onboarding screens and said they were helpful.

All participants said the Quick Tour was useful, although none of the participants read it carefully enough to make full use of it. Some participants were confused about how to progress through the tour because there was no button saying “Next”. Because participants were not able to fully use the Quick Tour, it was difficult for them to understand and complete tasks that came later. App designers could improve the user experience in the long term if they explained the most confusing parts of the App in the Quick Tour.

RECOMMENDATIONS

- **Make it easier for users to navigate the carousel onboarding screens by adding slide indicators.** Clear slide indicators will help users to have a better understanding of their actions and will help them easily navigate the carousel content (for example, a “Next Slide and Previous Slide” controls).
- **Use the onboarding screens** to communicate key features such as offline mode.
- **Make an option for users to return to the Quick Tour** at any time. This way users can reread the instructions on how to navigate the App.
- **Increase the visibility of the alternative action buttons on the quick tour screen.** This will help users understand all available options such as the ability to skip the tour. It will help users make more informed decisions about what they can do next.
- **Make the most important information in the Quick Tour more interesting.** For example, use video clips instead of text. Most participants were visual learners; video content may increase all users’ engagement with the Quick Tour and reduce confusion when interacting with later tasks.

2.3 Make it easier to find the exciting features

Using the App while offline

The O-Canada Mobile App can be used even when the device does not have internet connection. However, the testing showed that this feature is not intuitive enough. Until informed in the user testing, participants did not realize that they could use the App even when the phone was not connected to the internet or data (so called “offline mode”).

After researchers demonstrated this option during testing, almost all (51 of 52) participants said the feature was exciting. They also said they would have used it before if they had known about it. Most participants assumed this App, or apps in general, can only be used with an internet connection. This belief prevented participants from trying to use the App offline. Participants were impressed that the feature to use the App while offline existed and worked well during the testing. This was especially true for participants who live in areas with unreliable internet connectivity such as Lebanon.

RECOMMENDATIONS

- **Promote the use of the App without Internet connection as a key benefit.** This will encourage uptake, and make it clear to users that they do not need Internet connection to use the App.
- **Include how to turn off data usage for the App in the Quick Tour.**
- **Keep the features that users said were exciting.** For example, keep Add User, the ability to use the App while offline, and learning badges.
- **Explain to users how to download the App during a COA session.** This way, users can access the App right away and facilitators can tell users they can use it without connection to the Internet. Add the QR code to the COA Participant Workbook itself to ease app download.

Learning, progress and goal setting

All participants said it was difficult to locate the Learning and Progress section. Many thought it would be in the list of Units. Others tried to find it in Settings.

Out of the 52 participants, only 5 successfully found the Learning and Progress section. Specifically, the Arabic participants faced difficulties due to the wording used, suggesting a need to change it from “Profile/المواصفات” to “Achievement/الإنجازات.” Only two out of twelve participants were able to locate the section, while the remaining participants expected it to be on the main page. In the Kiswahili group, only 3 out of 5 participants found the section, but only after navigating through the settings pages. Additionally, the concept of tracking learning progress was unfamiliar to participants in all of the target languages.

RECOMMENDATIONS

- **Explain to users what the learning progress and achievements functionalities are and how to use them.**
- **Make learning a top-level menu item and rename** to something clearer such as “Achievement”.

- **Better gamify the learning progress.** For example, explore the technical feasibility to add reminders to study, or daily progress tracking to the Progress page.
- **Offer a certificate in the App,** similar to the one at orientation sessions, as a motivational reward.
- **Consider a mini assessment feature** of what information the user already knows so the App prompts them which sections to focus on.

Add User

Not one participant realized that they could add user profiles for friends or family members. Only three participants said they share their mobile phones with friends or family. Other research has found that some COA programme participants do share devices (Reid, 2021); more clearly signposting this feature would support users who would find it beneficial. During testing, only 10 participants of the 52 were able to create an additional user profile by first closing the app and reopening it. One participant, who was already familiar with the App, had unintentionally created three separate profiles. This is because they thought “Add User” meant changing the language of the App.

All participants had a hard time finding the Add User function. Some participants tried to tap “Hi, welcome back [nickname]” and some uninstalled the App. Participants also said it was not clear that to add a user, they needed to refresh or relaunch the App.

RECOMMENDATIONS

- **Include “Add User” in the Quick Tour and onboarding.**
- **Add the “Add User” function to the “Manage User”** page under the Settings tab.

KEY RECOMMENDATION 3: IMPROVE THE USER JOURNEY

3.1 Make download speed faster and fix technical errors

The most significant pain point for all participants was the slow download speed. Download speed is even slower for the non-English versions, which were taking an average of 15 minutes to download. Moreover, some installations failed to complete if the connectivity was lost displaying an error message that was not user friendly which left the participant not able to understand what action to take (see image 7). Participants at all testing locations were very frustrated by this. Some



Image 8: Home screen with no units

participants said the long download time could make them not want to use the App. During the download, some participants thought they should cancel and restart the download. This is because the download screen only displays a static loading icon (meaning users cannot see if the App is actively downloading or how much of it is already downloaded).

Participants shared other technical problems that discouraged them from using the App. Some experienced isolated errors, such as the home page loading with no units visible (see image 8), or the description of answers showing next to the wrong question. One participant's progress was deleted due to a sudden crash. Another could not hear any videos in the App until they turned off their phone's silent mode. Another participant was unable to use the offline mode because not all of the content loaded. These errors did not happen often, but designers would help improve user experience if they reduced these problems.

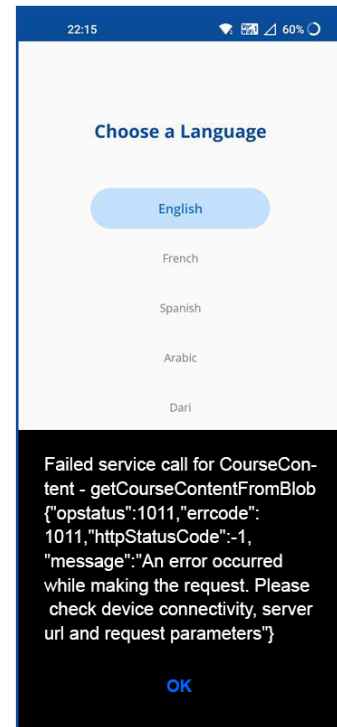


Image 7: Offline mode

RECOMMENDATIONS

- **Make the download speed quicker for languages other than English.**
- **Create a way to clearly indicate how much of the App has been downloaded** (for example a progress bar).

3.2 Make navigation more intuitive

Swiping is the main pain point in navigation.

In the testing sessions, all participants did not intuitively swipe to get to more content. This resulted in participants getting stuck with no option to keep moving through the app. One participant said they were confused by the “X” button at the top of the screen (to exit) and a similar-looking button which appears when one selects a wrong answer. Half the participants tried to click on the X button thinking it would close (see image 9). Participants were also actively looking for some way to search the content, but they could not find a search bar (which is a common navigation feature in apps).

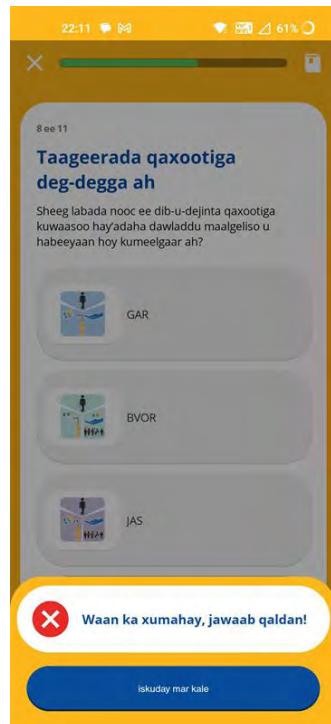


Image 9: X button

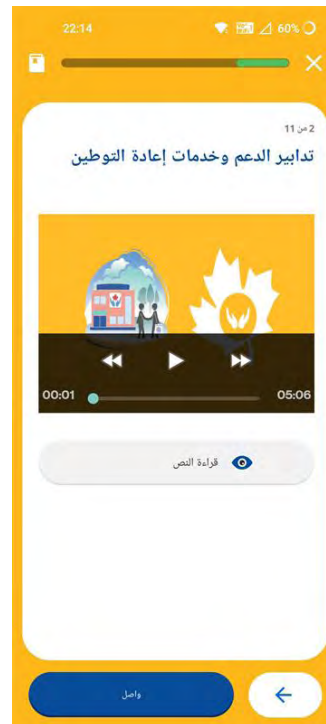


Image 10: Back button - Arabic

There are also design problems for certain languages. For example, two Arabic-speaking participants incorrectly attempted to tap the back button to try to move forward. Since Arabic is read right to left, these two participants expected the forward button to be on the left (see image 10).

RECOMMENDATIONS

- **Add visual cues to make it clear a user needs to swipe.** For example, add arrows, icons, page numbers or buttons. Make sure that the visual cues do not cause confusion in certain languages.
- **Add how users can navigate in the Quick Tour.** This will make the App more user-friendly, especially for people who do not use apps often.
- **Let users know about new features through in-app notifications.**
- **Explore the technical feasibility of adding a way for users to search within the App's content.**
- **Make sure design features are adapted to each language.**
- **Add descriptive text to icons** to clearly explain their function. For example, add “Close page” to the “X” button.

3.3 Improve usability for smaller screens

Almost all participants said it was difficult to see content or use interactive features because their phone screens were very small. They felt the App had been designed with larger or newer devices in mind. Participants said that many refugees are likely to have smaller and older devices. Therefore, designers should change the formatting to better fit smaller screens. For example, in the map section, all participants tried to pinch and zoom the map to make it bigger since the text was too small.

RECOMMENDATIONS

- **Increase the font size** or give users the option to change the font size in Settings. Make key navigation buttons larger. For example, Home, Profile, Settings, Check, Continue and Add User.
- **Use colours that have more contrast.** This will help users understand where to click (especially if they have small screens).
- **Add pinch to zoom** for detailed images. For example, give users the option to zoom in on the map of Canada. Being able to zoom may help users be less frustrated and use the App more.

Monitor user journeys

Using the App without internet connection is one of the most important features for the O-Canada Mobile App's target users. When users are not connected to the Internet there is no way to collect analytics (information on how users use the App). If IOM wants to better understand the O-Canada Mobile App pain points for users, it could add analytics for those users who use the App offline. For example, it could use Firebase.

KEY RECOMMENDATION 4: IMPROVE ACCESSIBLE AND INCLUSIVE DESIGN FEATURES

4.1 Make the design more user-friendly for people with disabilities and low literacy levels, and for people who are unfamiliar with apps

The best way to know what works is to ask the users.

Designers need to include people from marginalized groups in user testing. This will help make sure that the design and features meet their needs. User testing also enables those with lived experience of marginalization to offer insights and ideas on how to adapt the technology.

When CLEAR Global tested the App, it included people with different levels of literacy and general understanding of technology (digital literacy). The UX testing team noted that participants with high digital literacy and younger participants spent more time than others trying to figure out unfamiliar features. Additionally, three participants who had low digital literacy found it difficult to download the App. One did not know how to access the mobile application store.

To help people with low levels of digital literacy use the App, IOM should address the navigation pain points. An Arabic-speaking participant with low literacy was able to navigate to some content just by using the icons. This is an example of how IOM could use testing feedback to see which design features help users navigate the App. IOM should build on these findings to help more refugees resettling to Canada benefit from using the App.

One COA facilitator noted that sometimes women do not participate as much as men in orientation sessions due to cultural barriers. Other COA facilitators noted that women in some communities are excluded from education programmes. Globally, educational access for refugee girls remains lower than for boys (Grandi, 2018; UNHCR, 2017), which may mean that girls and women face challenges accessing information due to low literacy. Facilitators of the COA orientation sessions also shared that family members or children of these women sometimes read out the information provided by IOM. Furthermore, previous research found that women in refugee settings may be less likely to own a phone or be fully comfortable using one compared to men (Reid, 2021). When women in certain communities are not using the App as much as men, it would be helpful to have women-only tutorials on how to use the App. This could give these women a chance to receive extra support to use the App.

In this study, CLEAR Global did not aim to assess usability of the O-Canada Mobile App for users with disabilities. However, the insights gained can help IOM and other organizations with wider inclusion efforts. See Appendices 1 and 2 for general accessibility guidelines to help app designers and developers be more inclusive.

CONCLUSIONS

All participants in the usability testing of the O-Canada Mobile Application enjoyed the App and found it useful during the pre-departure period for resettlement in Canada. There were 52 participants from five target language communities (Arabic, Dari, Kiswahili, Somali and Tigrinya).

The usability testing resulted in five key findings and four key recommendations. The key findings and recommendations identify the pain points which cause people not to use the App to its full potential. The pain points are mostly problems in navigation, multilingualism, download speeds (for languages other than English) and a lack of awareness about the App's offline mode.

To increase usability across all language versions of the App, increase awareness of the App's full range of features and expand the App's user base, this study recommends taking these steps:

1. **First, improve multilingual usability.** Participants generally found the content clear and relevant, but some incorrect or incomplete translations caused confusion. Users also wanted to more easily be able to change languages. Arabic-speaking participants faced obstacles because some layout aspects had not been localized in the Arabic version for right-to-left languages. Addressing these points would help reduce language-related issues that detract from a user's experience.
2. **Second, make it easier for users to find and use its features.** The App offers many enticing features, but participants either did not know about them before testing or could not easily navigate to them. For example, all participants liked the App's offline mode feature, but no users knew about it before testing. The gamification features were also generally popular, but certain activities – such as carousels – confused most participants. Supporting participants to find and understand the App's most promising features would help participants have less frustration and stay more engaged with the App. It would also help encourage new users.
3. **Third, improve certain navigation aspects.** Some participants said their device screens were too small to properly display some content (this was true in the testing of all language versions). Many participants struggled with navigation actions common in apps, such as swiping. Providing clearer navigation instructions, such as during the Quick Tour, would help familiarize users with these features.
4. **Last, adjust some design and content to make the App more accessible to people with low literacy or digital literacy skills.** User testing included people with varying levels of basic and digital literacy. Testing found that people with lower literacy faced more obstacles and were more likely to disengage from the App. But, certain aspects of the App support usability for a range of literacy. The designers should build on these design principles to reduce challenges for users with low literacy in all of the App's features and functionality. Though inclusion was not the main focus of testing, participants raised suggestions on how to increase usability for certain vulnerable groups. For example, the COA programme could offer women-only tutorials on the App in contexts where women may be less familiar with technology.

The O-Canada Mobile Application offers a positive user experience, and users are excited about its potential. Many participants said that they would recommend the App to others in the process of resettling to Canada. Smoothing out pain points would make the App even more attractive, accessible and effective. With a few improvements, the App could be a blueprint for a user-friendly, information-sharing solution to support refugees throughout their resettlement journey.

APPENDIX 1: RECOMMENDATIONS FOR APP DESIGN FOR A DIVERSE USER BASE

These **general guidelines** are based on CLEAR Global’s UX testing and research on the O-Canada Mobile App as well as several other digital products. The O-Canada Mobile Application incorporated several of these recommendations during app development, such as use of regression testing, and Agile methodology. These guidelines can help make further improvements to the App, and support other UX designers and organizations to design, develop and deliver apps to a diverse user base:

Component	Recommendations
User-centred design	<ul style="list-style-type: none"> • Research the needs, goals and challenges of the target users – including language and communication preferences. This helps build empathy and understanding of user personas (a representation of a target user) and their journey through the app. • Prototype and test to get feedback on the design. • Continue user-centred development for new features and updates.
Quality assurance	<ul style="list-style-type: none"> • Conduct functional and non-functional testing in all language versions. • Conduct regression-testing (ensuring that existing features still work as expected) for new features.
Ownership and delivery	<ul style="list-style-type: none"> • Make sure there is clear ownership of the product – a designated role in the organization that manages the product.³ • Decide how to collect feedback that can be used to design, develop and deliver apps (for example usability testing or focus groups, satisfaction surveys). • Apply Agile methodology; this method makes it possible to consider the needs of stakeholders and users and continuously improve the product.⁴
Content	<ul style="list-style-type: none"> • Apply plain language principles to all text.⁵ • Make sure all content is translated and validated for appropriate terminology; test it with the target audience of the app (the end-users). • Assume at least some users do not understand English. • Keep in mind that some users may have little or no internet connectivity. • Remember that audiovisual content can help more people have access to the information.
Layout and navigation	<ul style="list-style-type: none"> • Keep navigation easy, predictable and consistent. • Provide a navigation tutorial. • Make sure navigation is localized for each language. For example, navigation buttons being on opposite sides between left-to-right languages and right-to-left languages. • Consider which kinds of device your user base most likely has when designing. • Make it easy for users to get support for the app, for example with a dedicated Help section.

³ See here for more detail on product ownership: <https://theproductmanager.com/topics/product-management-roles-and-responsibilities/>.

⁴ See here for more detail on the Agile methodology: www.atlassian.com/agile.

⁵ See here for more detail on plain language: https://translatorswithoutborders.org/wp-content/uploads/2020/04/Plain-Language_Write-Clearly.pdf.

APPENDIX 2: ACCESSIBILITY CHECKLIST

This **accessibility checklist** can help designers of informational products such as apps to be more inclusive for different user groups, including users with lower levels of literacy or those living with different types of disability:⁶

User group	Accessibility checklist
Low literacy	<ul style="list-style-type: none">• Use icons, images, videos, and audio as much as possible (to reduce text).• Use plain language and avoid jargon.• Keep text in small segments.• Use bullet points to organize text into even smaller segments.
Low digital literacy	<ul style="list-style-type: none">• Keep navigation easy, predictable and consistent.• Use simple features and explain complex features. For example, add instructions to the complex carousel feature.• Add labels and placeholder text for all input fields. For example, “Nickname: [write nickname here]” lets a user know what information to enter and where.
Auditory disability	<ul style="list-style-type: none">• Add captions and transcripts for audios and videos.
Visual disability	<ul style="list-style-type: none">• Make sure that text is large enough for users to read without straining or squinting.• Add an option for users to change the text size.• Add voice-only alternatives, such as speech recognition and audio books.
Cognitive, learning, and neurological disabilities	<ul style="list-style-type: none">• Use plain language and avoid jargon.• Use images, illustrations, graphs or other visual aids to highlight content.• Use simple navigation and page layouts.• Keep text in small segments.• Use bullet points to organize your text into even smaller segments.
Physical disability	<ul style="list-style-type: none">• Use voice recognition or other functions for hands-free interactions.
Speech impediments	<ul style="list-style-type: none">• If there are functions or activities that require voice activation, use text alternatives.

⁶ Recommendations regarding users with disabilities are based on recommendations given in the Web Content Accessibility Guidelines (WCAG) 2.1 (Kirkpatrick et al., 2018). For a summary, see https://treehouse-project-downloads.s3.amazonaws.com/Accessibility-for-UX-Designers/UxDesigner_Checklist_Interactive2.pdf.

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