



Mobile  
Intercultural  
Cooperative  
Learning

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## Extended App Review: **World War II Interactive**

Published by: **Touchzing Media**  
Education level: **Secondary (History)**  
Price: €4.99 Platform: iPad (iOS4.3+)  
Version: 1.5 Last Updated: 17/09/2013

App store reference URL:

<https://itunes.apple.com/ie/app/world-war-ii-interactive/id437200190?mt=8>

This review is provided for guidance purposes, as part of research on the classroom effectiveness of tablet applications undertaken during the MICOOL project. For more information about MICOOL, and for a range of shorter-form app reviews, please visit [www.micool.org](http://www.micool.org)

Reviewer: **Dónal Mulligan, *Dublin City University***

Review Date: **10 May 2016**

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## 1. Introduction

This review utilises an evaluation rubric designed as part of the Mobile Intercultural Cooperative Learning (MICOOL) project research, at Dublin City University. The researchers contend that a clear and systematic method of assessment for learning resources, based upon considered and weighted evaluation criteria, provides the best model for fair and thorough review. Thus, the *DCU App Evaluation Rubric*<sup>1</sup> forms the basis for this extended review by providing systematic focus on key areas for analysis, providing comparable scores across thematic sections of evaluation, and drawing attention to areas of investigation that might otherwise be overlooked in broader and simpler review mechanisms. Evaluation using the rubric is performed by a single reviewer, named on the opening page of this document, and while the tool has been designed to mitigate overly subjective responses (through narrowly and specifically framed questions with unambiguous 5-point choices), it remains possible that biases inherent to the reviewer are reflected in this review. It may therefore be useful, to use this document as a starting point for further review and discussion of the app under examination.

This paper briefly introduces the evaluation rubric, and the app being assessed, before providing detailed information on the evaluation in four thematic areas (Content, Design, Assessment, and Technical considerations). It concludes with a summary of the overall utility of the app for teaching and learning and a summary of the rubric score.

### 1.1 *The DCU App Evaluation Rubric*

The rubric used in this evaluation was developed by researchers at Dublin City University in response to the lack of a publicly available and sufficiently detailed assessment tool for the evaluation of *content-based* tablet apps for use in European classrooms. The rubric was created in Google Forms, for ease of use and reporting, though it may be adapted to and used in other

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<sup>1</sup> The DCU App Evaluation Rubric is available online at: <https://goo.gl/HpWkPW> (*Google Forms*; accessed: 10 May 2016)

formats with the permission of the MICOOL project. The project defines content-based apps as those which contain *instructional content*, and often assessment, and may be used by teachers and learners directly to provide relevant information and testing on a topic (*e.g. mathematics learning, language practice*) – in contrast to creative apps, which may be used by teachers or learners to produce their own content (*e.g. story-telling, movie-making, book creation*). This important distinction defines the evaluation criteria of this tool.

Using this rubric, content-based apps are evaluated using thematic question sets that emphasise the following investigative criteria: *Quality of instructional content, Interaction Design (including Usability & Accessibility), Assessment & Feedback Design*, and *Technical and Support* considerations. Additionally, the design of the tool emphasises the collection of useful descriptive information on the app being evaluated, including details of its publication, pricing, stated age-group and education level, platform limitations, and suitability to classroom or collaborative learning environments.

## **1.2 The Evaluated App**

This paper reviews *World War II Interactive*<sup>2</sup> - an English-language iPad app providing information on the conflict supported by rich media. The stated aim of the app is to provide periodically divided accurate historical information, augmented with video clips of major events, audio recordings of speeches, and hundreds of photographs. The app is therefore intended as an immersive and interactive tool for history learners, emphasising topic- and period-based exploration of media.

A rating of 12+ is given, based on Apple's App Store criteria for portrayal of violent content, though the publisher makes no statement of intended education level and no existing history curricula are referenced for any country. This rating and content implies use at Secondary School level.

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<sup>2</sup> <http://worldwar2app.com> (*Publisher website; accessed: 10 May 2016*)

The app is optimised for iPad and limited to that platform (specifically devices running iOS 4.3 or later) and is 206MB in size. The latest available version of the app (v1.5) was released in September 2013. The app was evaluated on an iPad 2, running iOS 9.1.

The app is priced at €4.99, and it is important to note that a free version with an identical name also exists from this publisher, though that version is highly restrictive of content. The full (paid) version is reviewed here.

## **2. Instructional Content**

The app presents a substantial amount of fixed information and media relating to thematically and chronologically presented events of World War II. This information is presented in a factual and unbiased manner and would likely complement an early Secondary School lesson on the events of the war in any European curriculum.

The presentation of this information, and especially the progression through topics, presupposes some knowledge of the war as well as a basic knowledge of the conventions of web or app navigation to move through it.

This coincides with the age recommendation of 12+ years, as these skills have likely developed within a user of this age through previous logical evaluation and experience, although the app's absence of situating the war in wider European history may not be obvious in its description and may lead some users to conclude that the app is a suitable source for beginners on this history topic, when this is likely not the case.

The publisher declares no endorsements or affiliations with national or local departments of education, agencies, or NGOs, in any country. It should be noted also that some of the information provided on events of the war corresponds exactly to Wikipedia, which is a stated source in some parts of the app. The reliability of information derived from Wikipedia and not reviewed or endorsed by an authoritative source on history education may therefore be questionable, and careful review of topics that this app is used to support may be necessary by a teacher.

No explicit learning outcomes are stated by the publisher, and while the content of the app is extensive, it provides no links or references to further sources of information or opportunities for educational branching. The app is therefore effectively an extensive media reference library on the topic of the war, which might support a Secondary School history lesson, but which is likely to need review and considerable direction by a teacher.

### 3. App Design

Navigation of the app content is broadly facilitated via simple hierarchical menu system that should be familiar to web users (See Fig. 3.1, below). There is a sense of flow to content access, relying upon a left-to-right content navigation. The app emphasises chronological structuring of the content, and associated sequential access to it, though it is possible for more knowledgeable users to utilise secondary navigation to take a non-linear path through content of interest, skipping presented topics. Swiping through event-timelines is possible, providing quick access to specific topics where necessary, though the detail provided may make seeking specific topics out quickly a confusing experience.

Figure 3.1 - Evaluated app's menu system



The app allows for immediate and complete access to all content and contains no 'gateway' functionality or progress-dependent restrictions on topics or sections. The navigation is based on a non-invasive, hierarchical system making the passage and interaction with this large volume of

information simple and effective. Information is largely archived based on an overall timeline, then further divided into key periods, events and conflicts, and finally into each piece of documentation within that event, including media resources. An icon-based 'back' button is persistent in the top left of the screen through this progression through content (See: Fig. 3.2). The media resources can also be accessed independently via hyperlinks given on the home page and among sections of topic text.

Figure 3.2 – Event-level content presentation, showing back button and video media resource, which can be accessed from this section.

**Attack On Pearl Harbor**

The attack on Pearl Harbor was a surprise military strike conducted by the Imperial Japanese Navy against the United States naval base at Pearl Harbor, Hawaii, on the morning of 7 December 1941.

**Background**

The U.S. ceased oil exports to Japan in July 1941, following Japanese expansion into French Indochina after the fall of France. This in turn caused the Japanese to proceed with plans to take the Dutch East Indies, an oil-rich territory. The Japanese were faced with the option of either withdrawing from China and losing face or seizing and securing new sources of raw materials in the resource-rich, European-controlled colonies of South East Asia.

Preliminary planning for an attack on Pearl Harbor to protect the move into the Dutch East Indies and Southeast Asia had begun very early in 1941 under the auspices of Admiral **Isoroku Yamamoto**. Over the next several months, pilots trained, equipment was adapted, and intelligence collected. Though by late 1941, many observers believed that hostilities between the U.S. and Japan were imminent, and U.S. Pacific bases and facilities had been placed on alert on multiple occasions, U.S. officials doubted Pearl Harbor would be the first target. They expected the Philippines to be attacked first, due to the threat that air bases there, as well as the naval base at Manila, would

**When**  
7 December 1941

**Where**  
Pearl Harbor, Hawaii Territory, United States

**Who**  
Japanese Combined Fleet Vs. United States Pacific Fleet

**Result**  
Major tactical victory for Japanese

EXPLORE WORLD WAR 2

An important feature of the interaction design for these levels of information is that each further page appears to layer on top of the last, creating the effect of overlapping documents on a desk, adding a visual reinforcement of the depth of investigation on a particular topic area and assisting in creating a sense of place within the substantial amount of content. New information clearly relates to the previous page and to the selection made, and is accurate to the expected outcome. Likewise, the backwards flow of

information, using either the back, home or media button, is functionally sound and reacts as expected.

The colour scheme for the interface is limited to sepia tones and a narrow range of browns and greys. While this provides a visual cohesion throughout the app and is in keeping with the appropriately “vintage” look of the footage, this design choice limits potential to effectively differentiate content sections or aid navigational clarity.

#### **4.1 Usability & Accessibility**

Content navigation is logical and straightforward, and reinforced with hints and instructions for the app navigation and sectional design. These hints are non-intrusive, appearing in the form of overlaid text areas, with arrow and well-established simple icons (e.g. “i” for info).

Text content is legible and largely clear, though in some areas contrast is low between large blocks of white serif text on semi-opaque boxes sitting over a sepia photograph (See: Fig. 3.2). In areas where the text overlays a bright portion of a photographic image, it can be distinctly less legible; examples occur for several instances of captions on photographs in the galleries.

The application lacks any measurement of completion and progression. There are no checking procedures for content access nor any notification or visual reinforcement of which branches have been previously explored. Here the lack of colour range in the app’s interface, and the similarity of style in the various sections and timelines mean that there is little to distinguish between particular areas of content.

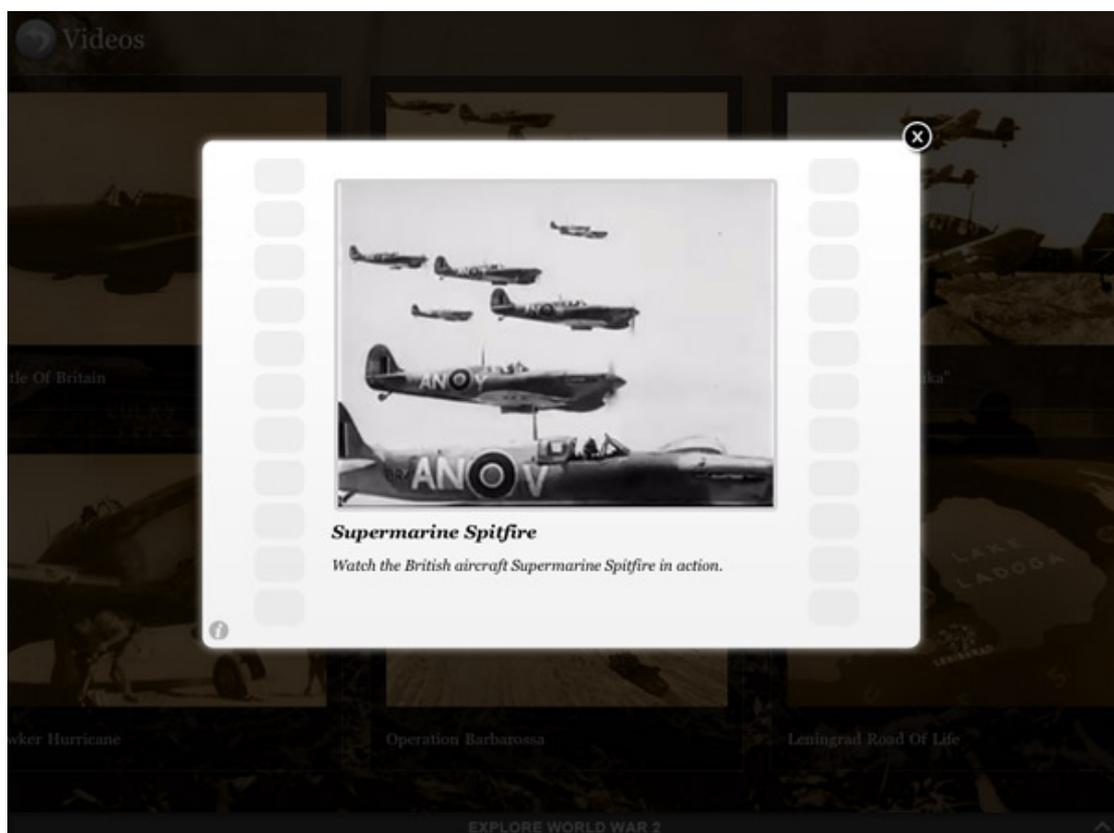
No additional accessibility considerations are evident in the design of the interface; it is not possible to change text size for readability, nor are subtitles provided for videos or audio recordings.

#### **4.2 Mediation**

The app contains a range of media resources, presented in context as supporting documentation to various subsections of the content; photo galleries, audio clips and short videos are variously included. In all cases, the

media controls for these are basic and function as expected – videos can be played and paused, etc. There are no in-app media controls for the volume of audio, so the app relies on the hardware controls of the device. The behavior of overlaying pages on top of one another as navigation progresses leads to a default presentation of video elements in a smaller view than the screen allows, with something of the underlying content bordering it (See: Fig. 3.3). Controls are present, however, to allow video to be maximized to the full screen for clearer viewing.

Figure 3.3 – Video content in the app; default view.



## **5. Assessment**

The app does not feature mechanisms of assessment or associated feedback.

There are no indicators of progress through the content and no testing of user comprehension of the material is presented. In this regard, the app is a passive information source, which may be non-linearly navigated and in which detailed historical resources may be found, though any correlation of these with a lesson would have to be structured by a teacher.

This absence of assessment is a considerable weakness of the app, the sectional and hierarchical division of which could have supported topic- and period-based quizzes, or other simple comprehension and information retention assessment interactions along a behaviorist model.

Without assessment inclusions, the app obviously does not feature reporting of progress to either the learner or a teacher, and combined with the difficulty of visually tracking progress through the material or which sections have been previously viewed, any sense of reporting of topics covered is absent.

## 6. Technical Considerations

As previously reported, the app size is around 200MB, and installation and download via the App Store is uncomplicated. Though limited to iPad, the technical constraints are rather low for an app of this sort, with a minimum iOS version of 4.3, representing high backward compatibility on devices running outdated versions of the operating system and no onerous minimum hardware requirements.

Even where tested on older iPad models (iPad 2), the reliability and stability of the application was very good; it was used consistently for several hours during testing and did not crash or display bugs or errors.

The app is a standalone piece of software and does not require any external resources nor does it interact with any other piece of software.

Importantly for use in the classroom, an internet connection is not required, as the text and media content is bundled in the app rather than requested or streamed from online sources.

The publisher provides a website for its product range<sup>3</sup>, which includes support information for this app. Within the app, a link to a help page from the home menu, which provides a thorough guide for navigating the available content and general usage guides.

Users can leave and re-enter the application at any time and easily return to whatever document they were previously examining. By default, the current position of the user within the content navigation is preserved.

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<sup>3</sup> <http://www.touchzing.com> (Publisher website, offering product support links; accessed 10 May 2016)

## 7. Conclusions

Overall, this app provides a comprehensive media library resource for the broad historical topic of World War II. The app's utility in the classroom is severely limited by the lack of any assessment of comprehension or retention of the information provided, and to some extent by the question of reliability of some of the information provided.

However, where directed by a teacher presenting a broader framing of the topic of the war, or a focus on a particular period, the app could prove a very useful centralised and navigable archive of media resources and basic information. In particular, the collection of video resources might usefully add to a structured lesson. The potential strength of this app for learners of history lies in the volume and organisation of topical and chronological information on the war, which can be non-linearly accessed at a student's own pace and used to support other studies.

This type of usage being most suitable, it is unlikely that several students could use the app in a classroom environment simultaneously. It may therefore be most suitable as a solo study aid, or as an organised archive source for small groups of students combining contextualised information on periods or topics of the war.

### 7.1 *Score Breakdown*

The maximum possible score within the design of the DCU App Evaluation Rubric is 200, representing the most positive evaluation possible for every investigative criteria. This app had an overall score of 113, placing it in the lower bound of recommended apps for teaching and learning. However, a separate analysis of the thematic sections of scoring provides a better overview of how the app was evaluated.

A score of 38/50 was noted for Instructional Content, demonstrating an extensive range of topic information, likely reliable, well-organised and supported by media resources.

A score of 33/50 was recorded for Design, demonstrating a solid navigational arrangement and a capacity for deep hierarchical structuring of information, though lowered by some limits around distinction of areas already reviewed, etc.

A score of 0/50 was recorded for Assessment, indicating that no assessment was present and therefore substantially lowering the overall score for the app.

A score of 42/50 was recorded for Technical Considerations, indicating a well-supported, stable, and reliable app, without onerous technical requirements.

These scores may be compared with other similar applications, or with evaluations carried out using this rubric in the future.