

## Tablet-Based Administration of the ORExt Overview & System Requirements 2017-18



### **Overview**

#### *Background*

The Oregon Extended Assessments (ORExt) will be available for the 2017-18 school year in a tablet-based administration that employs the ORExt testing application, a secure application that is downloaded onto student tablets to present test items. The ORExt testing application has been under development for the past two years. In 2015-16, the initial prototype was developed and used in addition to the paper/pencil version in a Phase 1 study. Results from the paper/pencil administration correlated with results from the online test application, which was administered two weeks later (ELA  $r = .89$ , Math  $r = .82$ , and Science  $r = .89$ ). 2016-17, the test application was operational and replaced the paper/pencil version for students involved in Phase 2 the study. The Phase 2 study focused upon database design and transmission between Behavioral Research and Teaching and the Oregon Department of Education.

#### *How the Application Works*

The test application is pre-populated with student demographics for all Oregon students with disabilities (SWD). Qualified Assessors (QA) select the SWD from a list of SWD within their school who will participate. Once a student is selected, the system identifies which assessments should be given to the student based on the student's enrolled grade. QAs begin the testing process by selecting the content area to administer. Students begin testing. Items are presented to the student in sequence and students are read all item prompts and answer choices (with the exception of some reading items where independent reading is required). The answer choices enlarge and are bordered green to help students track and pay attention to the answer choices. Once the prompt and answer choices are presented, the student touches his/her answer and the system proceeds until testing is completed. The QA enters a code to terminate testing and all data is saved on a centralized server, which is sent to the Oregon Department of Education on regular intervals. Item scores for Math and Science, where tested, are automatically saved in the system. ELA includes reading and language scores that are automatically saved. Writing scores are made manually by the QA after testing is completed.

### *Primary Benefits of the ORExt Testing Application*

There are five primary benefits of offering the ORExt in a tablet version, according to Focus Group results from both Phases of the pilot tablet administration studies. They fall into three general domains (increased standardization, increased student engagement, and saved time):

- 1) The test administration was more standardized, as all students receive the items in the same manner (it is not subject to inter-individual differences related to QAs).
- 2) The tablet administration increases student engagement. Students were described as paying a higher level of attention and being more motivated to participate in the assessment.
- 3) Because of the level of student engagement, test administration took less time compared to the pencil/paper administration.
- 4) Teachers did not have to record student data, which saved teachers valuable instructional and/or work time.
- 5) The tablet administration saved paper, as it does not require any printing or management of test materials. This also saved valuable teacher time.

### *Training for QAs*

The tablet based administration expectations will be woven into the existant <https://or.k12test.com> training and proficiency website as its own section. All prospective QAs will be presented with information regarding how to successfully administer the tablet-based administration. QAs will also answer proficiency test questions regarding the tablet-based administration to ensure that they have a sufficient level of understanding prior to test administration.

### **System Requirements**

The following are the expected operational and system requirements for using the 2017-18 Oregon Extended Assessment tablet-based administration testing application.

#### **Operating System**

iOS: 8.1

Android: 5.0

ChromeOS: Current Version (Version 58 as of May 2017)

iOS - Ideally we would have set this to a newer version that is still supported by Apple (Eg 9.3), but in spring 2017 we had 8.x devices that needed to work, and this will likely be the case next year.

Android - Set to 5.0 because that is the version where the ability to Pin an app so it can't be closed was introduced. In the past, versions of the App have been able to run on versions as old as 2.3 without issue, but without the ability to lock the app to the screen.

ChromeOS - Due to the nature of the ChromeOS update model, the OS should update

automatically unless the device is so old that it has reached End of Life (After 5 years). New versions of the OS are frequent, old versions are unsupported, and there is no easy way to test against old versions. Generally, ChromeBooks are kept up to date, and if they are not, then we would need to be contacted for support.

### **Display**

Screen Size: 8" (10" Recommended)

Screen Resolution: 1024x768

This is largely informed by previous experience. There, we determined that 7" screens like those in the Kindle Fire were too small to give a good test presentation. The 8" screen of something like an iPad Mini we would consider the bare minimum, and 10" screens were ideal.

We also need sufficient memory to run the app smoothly, as well as free disk space to house the app.

### **Storage**

RAM: 512MB (1024 Recommended)

Disk Space: 30MB Free

Generally Android devices with less than 1 Gigabyte of memory don't run as smoothly as we would like, but we also tested a 1st Generation iPad mini which ran flawlessly with only half that. Since we explicitly want to support the 1st Generation iPad Mini, this spec was written with this in mind.

Finally, we want to have good network connectivity, to discourage attempting to test students with a sketchy signal or only 1 or 2 'bars' of signal strength. Low signal means greater likelihood of losing data. With the new changes for next year, if the system detects connection problems, it should shut down, but we want to minimize these occurrences.

### **Network:**

Active Network Connection: Required. Either Wired or Wireless

Wired: Preferred if available

Wireless: WiFi Signal strength 3 out of 4 'bars' or better.

Firewall: Ability to access [orext.brtprojects.org](http://orext.brtprojects.org)

Generally a wired network won't be available for these devices, but some ChromeOS devices (ChromeBoxes, and some ChromeBooks) have ethernet ports, and we recommend using them if available and convenient. We also want to make sure that our server is allowed through the School's firewall.

If you have any questions about the ORExt tablet administration, please contact our *HelpDesk* at 1-800-838-3163 or [orextended@k12test.com](mailto:orextended@k12test.com). Thank you!