Technology and Systems Changes
AK AA System 2014-2015

Introduction

Technology changes for 2014-2015 are designed to streamline the existing training and testing system to meet new requirements. Dillard Research Associates (DRA) will maintain the AKAA Science test, revise the online training and score reporting functions, provide wrap-around training and support systems related to the DLM system, and assist EED in maintaining the existing Qualified Mentor program. Dynamic Learning Maps (DLM) will provide training, testing, and score reporting in Reading, Writing, and Mathematic Alternate Assessments.

In order to provide minimal disruption to users and facilitate training, the delivery for all changes is currently scheduled for September 15, 2014. This will allow EED an opportunity to review the revised system and documents prior to opening the system for Mentors in time for the October 6 and 7 Annual Mentor Training.

This document provides a high level overview of all proposed changes to the system and should be viewed alongside the current production website: https://ak.k12test.com/

OVERVIEW:

From the programming perspective the system really is ONE holistic offering. If the desire is to start changing system functions, particularly something as fundamental as the tests offered, it's basically a fixed cost. The reason is that to make the system Science only, Aaron will need to read through the entire code base, rewriting functions, restructuring the database, aligning the java script, and modifying the user interface as he goes.

For instance, the Oregon site is not as complicated as Alaska's (Oregon's site is training only) and has 199,185 lines of code. With that much tech effort, as long as the desired outcomes are clearly communicated ahead of time, adding or subtracting a few things isn't going to change the programming effort required.

If EED were going to stay with the DRA system for more than three years, it may be cost effective to rebuild the Science training, proficiency, and testing system from the ground up, using a different platform. But for two to three years, revising the current site is the most cost effective and provides the highest level of comfort and familiarity to the Qualified Assessors and Qualified Trainers.

Note: Numbers in the left column refer to row numbers in the budget document "AKAA_2015_Budget_V19.xlsx"

1.	Project Management

ROW #	**Annual Planning Meeting**
19	The 2015 Planning meeting will be by webinar, rather than face to face. DRA will not attend the Fall or Spring TAC meetings.

48   **Quality Control/Quality Assurance**

Science DOTS only, change dates on test documents to reflect current year. The complexity of the programming increases with elimination of R/W/M tests: the current system was custom developed for the AK AA effort, and has many features designed to help users and system administrators that will have to be re-worked. For example, error checking within tests, submit to EED, unofficial reports are all systems that interconnect. Each step and change requires QA/QC of documents, online text, and coding. Subsequent years' work in this area will be reduced time and cost.

66   **Tracking Systems Improvements**

Track changes made, the "downstream" connections, and verify working links and functions. Some tasks will have to be recoded; other functions require yearly maintenance and upkeep.

72   **Help Desk**

DLM will provide Helpdesk for RWM. DRA anticipates many calls to DRA that will be simple referrals to DLM. Anticipated topics for DRA helpdesk will likely include: log on, password, account clean up, Science training and testing, referrals to DLM, and navigation changes.

2.   Assessment System

81   **Braille and Large Print Tests**

Provide large print tests for approximately 5-7 students. If Braille tests are ordered, DRA will produce those at no extra cost.

Coding changes to the Secure Test programming matrix: remove RWM. This task requires coding related to decision rules for passing proficiency tests. These rules also control access to the Secure Tests when the window opens, and informs the system in subsequent years related to Full or Refresher testing. The Secure Test Matrix is available on:
https://ak.k12test.com/teachers/auth/pdfs.php?category=Secure+Test+Materials

Item Bank (DOTS maintenance)

DOTS update only for Science items.

3.   Uses of Technology

104   **System of Usability**

No coordination of data file with DLM. QAs will continue to hand-enter science students. Documentation of security measures and backup and recovery methods will be provided.

Code and videos will be compatible across browsers and platforms: DRA continues to provide assurance and documentation that the online training is available and viable for the two major computer platforms used in

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schools in Alaska (Macintosh and PC), as well as users with high-speed Internet, or other types of arrangements for access to training, scoring, and reporting. Translation / transcode of content for efficient delivery to low bandwidth AK sites.

109 **Pilot test of system**
DRA will remove Reading, Writing, and Math sections on the site. Test the system as part of QA/QC.

123 **Reporting website, file exchange between EED and DRA**
DRA will upload only Science Individual Student Reports to the akreports.k12test.com site, and will continue to host all reports from previous years.

130 **Annual Updates / Improvements**
Updates to documents
DRA will provide practice and secure test materials for qualified assessors for Science only, will remove R, W, M practice tests and secure tests, update related documents.

Materials tab – Upload revised documents and remove obsolete documents.

Access to Secure Tests
Coding changes: Secure test programming matrix: remove RWM [This is the table of tests on https://ak.k12test.com/teachers/auth/pdfs.php?category=Secure+Test+Materials

Annual Updates
Includes school drop down menu, FAQ online, reprogram data entry for Form B science.

4.   Test Administration

142 **Test Security**
DRA will identify less expensive server and hosting company (estimate 20,000), but increased threats have led to increased auditing and security software. Additional time is required in the first year to move to a new hosting company, but those costs will not be repeated in subsequent years.

This deliverable also includes monthly (or more) security scans, as-needed patches, and standby equipment and services should something fail (i.e. DRA maintains responsibility to provide secure website regardless of external events).

148 **Mentor Program**
DRA and EED to review text in Administration training pages to revise and

reduce requirements for training. Mentor program will be maintained. All leads will be treated as new to the DLM system for FY15. DRA will provide support and management of mentors for EED.

151   **Training to Administer the AA**
DLM Training Portal
DRA will develop a portal page that will outline required trainings and provide direct links to DLM pages.

Coding changes: None. DRA will embed DLM training requirements and links within existing DRA training tab.

DRA will work with EED to revise existing training topics.

157   **Proficiency Tests**
Provide science assessment training and proficiency assessments for assessors and mentors. Coding changes: Proficiency Testing has embedded algorithms. Programming required to allow a certificate based on just administration and science proficiency or refresher tests. Meeting the "rules" is required to have access to secure test materials.

This cost includes changes to the proficiency test to reflect Science only, and coding changes to the system to permit access of Science only (vs. current system that requires training completion and proficiency testing in Administration, Reading, Writing, and Math)

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& 226**   **DRA training in the DLM system**

DRA has already begun training and analysis in the DLM system. Additionally, Kim, Sevrina, and Dan will participate in training in Kansas this summer. These trainings are necessary for appropriate re-design of online and face-to-face training with Alaska's Mentors.

DLM help desk training (Sev and Kim): Sevrina and Kim to train in DLM help desk to prepare to train QTs in Fall. Frequently asked questions at Help Desk permit pre-training to avoid difficulties.

DLM system training (Dan and Kim): training related to the operational system for 2014-2017 is required to provide appropriate training at Annual Mentor Training in October.

277   **Tracking QAs & QTs**
Eliminate tracking except for science. Tasks include merging user accounts, repairing double accounts, track logins, time on training tasks, and user data entry.

The technical process remains the same. We anticipate a large number of "archived" users who previously participated with DRA site but are no longer active.

252   **Web Reports for Mentors and Administrators**

Administrative reports available for DRA, EED, and mentors will be revised:

ADMIN Tab –
Update User Status will remain.

Data Entry Status Report requires some programming change to remove the columns for Reading, Writing, and Math (used by mentors and DRA for tracking QA).

Email Wizard remains.

User Status History – will change due to prior coding change to reflect completion upon proficiency tests.

User Proficiency Overview – reflects scores, no changes needed, RWM will show 0 or be removed.

User Proficiency Item Performance – no changes requested, Reading, Writing, and Math will be removed. (Helps DRA evaluate if questions are working and science is not an issue in re proficiency).

User Data Entry – No changes requested.

Timing/Scheduling report gathers Accommodation information. No change requested. DRA will pull information for technical report from Science only.

Subject Area Test Individual student reports – data fields that populate ISRs. No change requested. DRA will pull from Science and Science ELOS for Science ISRs. Suppress or remove Reading, R ELOS, Writing, W ELOS, Math and M ELOS. Leave visible ONLY Science and Science ELOS.

259   **Administration Manuals & Directions**
Remove Reading, Writing, and Math references, and leave Science. Increase to include instructions regarding changes to website: Navigation guides, online support documents, instruction.

266   **Online Training**
Create a simple page of instructions with links to DLM-required training and tests. Revise training topics and content. Vet new training, Unpacking Standards, with EED.

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This amount includes changes to the content to the training site as well as providing training in instruction from standards ("Unpacking the Standards" training module to be vetted by EED).

5.	**Scoring & Reporting**

284   **Reporting Results**

Score student results, and provide student reports.

DRA maintains responsibility for all the same deliverables (research file, AYP, ISR, and Technical Report). There is a savings in reducing to one test, but it is not significant. Minor changes and major changes are approximately similar. Each requires reading through complex and interrelated code to find the correct places to make changes.

A possibility: EED might consider a less work intensive file (example sql from the reporting system) in place of research file for savings on tech time.

This option is not recommended, as a database designed around sql would be a generic offering with little customization. A few examples of the major changes: minimal user levels (basically assessor and admin), no unofficial reports, minimal (or email generated by DRA staff based) feedback. Also since this generic technology would not "do the work for the user", more time would be required on the part of AK EED / DRA. For example no email wizard, admin reports would be generic and require post-processing in excel or similar, custom features (for example error checking user data entry) would have to be done by DRA staff. For these reasons, DRA does not recommend changing the database to sql. The initial cost savings would be bypassed by the lack of user interface and the resulting increase in personnel time.

394   **Annual Update of Data Entry**

Coding Changes – Data Entry Student Setup: No changes.
Enter Scores has annual changes.
Remove Reading, Writing and Math entries on Enter Scores section.

301   **Review of Data Entry**

Coding Changes – Data Entry Student Setup: No changes.

307   **Reporting Website**

Regular programming updates, password changes, upload reports, and user manuals. Host secure reporting website, post 2015 student reports for science. DRA will continue to host all reports from previous years and produce yearly password resets for the DTCs and QTs.

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311   **Individual Student Reports (Official)**
        Produce Science ISRs. Host on akreports.k12test.com site. DLM will host
        Reading, Writing and Math on DLM Educator Portal. DRA will continue to
        host previous years of RWM and Science as well as new years of Science.

318   **Unofficial Student Reports**
        Provide unofficial student reports. Printing Unofficial Student Reports for
        Science offers mentors a way to track science submissions

        DRA will remove the R/W/M options in Data Entry > Enter Scores.

329   **Data Files**
        DRA overviews the admin section of downloads to ensure data is consistent
        with current efforts (test, year); blending of these files with AK AA provided
        updated student info for creation of year-end static files.

6.   Technical Quality

351   **System Evaluation**
        System evaluation tasks include analyzing feedback from the field at each
        point of contact: proficiency testing, face-to-face training, and help desk
        questions. The feedback is recorded and analyzed, and solutions are
        recommended for implementation.

        An example of this type of evaluation is DRA's current system of looking at
        the number of students registered in the system for whom test scores have
        been entered AND submitted to EED. This system will become a bit more
        complex with the move to DLM. DRA will not be able to rely only on the
        number of students entered as the divisor, as it is possible that some
        teachers will test their students on the DLM system and not remember to
        enter them in the DRA system for the Science assessment. DRA will need
        access to the database of students entered in the DLM system in grades 4, 8,
        and 10, and compare those lists to the number of students entered into the
        DRA system in those grades. Districts will then be informed of discrepancies
        in those two numbers.

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NOTES: Indirect costs include: Conference line, Webinar service, Server, travel to Annual Mentor Training and DLM trainings

Update test documents, guides, other documents. Changes include current dates, changes in rule or practice, and new information regarding the DLM/DRA testing system.

Maintain the existing test website through the term of this RFP (2017). The goal is to minimize expenditures of time and money to maintain science that is a peer-reviewed assessment as is, and to maintain the existence of the RWM websites as the backup plan to the RWM DLM assessments.

DRA will need to prepare a technology document explaining any needed changes and costs since the next two years (2015-2017) are maintenance years for Science. Technology changes this year need to be explained in a Technology changes or other document indicating to the field that only Science is live this year.

Decision: Developing a mentor program that reduces the amount of Science training while maintaining a basic integrity to system and incorporating the new DLM requirements.

Decision: New Mentor Training program – Remodel the existing program. How much of this will DRA need to do? Retain Science as is, add links to the DLM requirements. Further development in July.

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