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September 6th, 2017
Ms. Alison Gower
Director of Content
Tennessee Department of Education
Andrew Johnson Tower, 12th Flor
710 James Robertson Parkway
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To the STATE INSTRUCTIONAL MATERIALS QUALITY COMMISSION

Dear Members of the Commission,

Thank you to the TN Department of Education for the opportunity to submit the Science Bits Instructional Platform to the 2016-2018 Section C Adoption.

We also want to use this opportunity to effusively thank the Office of the Director of Content for their continuous support during this adoption process, within the constraints of its rules, a very demanding schedule and a large number of participants.

We are convinced the Science Bits platform and materials can really make a difference in the science results of the students of Tennessee. It will really be an advantage in terms of achievements of the state in science. Our statement is supported by more than 100,000 students using Science Bits, 18 national and international awards received by the solution, as well as evidence collected through research programs conducted by prestigious organizations like the Center for Research and Reform in Education (CRRE) of the Johns Hopkins University - School of Education and WestEd, among others.

However, there have been some events in the process that could eventually prevent Tennessee students from getting access to that educational advantage. We would like to expose those events to the Commission and kindly request the repetition of some of the reviews in order to evaluate the real convenience for adoption of Science Bits for grades 7 and 8.

We expose the events in chronological order for the two evaluation rounds occurred from June 8 to June 16 and from August 11 to August 30, respectively.



First round *(Section 1 reviews only)*

Firstly, we want to make it clear that Science Bits is a very young start-up, so it is the first time we have participated in an adoption cycle like the current one. For that reason, we lack experience to organize our materials in the best possible way for the task of the reviewers. In this round we made the mistake to create reviewer accounts with access to all the digital materials for all Middle School grades (6, 7 & 8). This made the access to the materials confusing.

In addition, Science Bits is a fully digital solution. As a result, reviewers who are mostly experienced with paper based materials may need some support to understand how to navigate the solution to get full visibility of everything it delivers. In all our implementations in schools and districts, we resolve this issue with a 2 hour webinar included in the price of any teacher subscription. However, the rules of the review process did not allow for such Professional Development to reviewers.

For all those reasons, when we received reviewer feedback for the first round, we were surprised with the number of comments regarding the way the content was organized as opposed to comments about the content itself. For example:

- “[The curriculum] is difficult to navigate and therefore a new teacher would struggle with this curriculum.” *Most of the 5,000+ teachers already using Science Bits would disagree with that comment, but they have received our Professional Development.*
- “Slide 3 Atoms section shows a model of an atom but doesn’t indicate the position of the proton or neutron. Also the charge of the neutron is not discussed.” *The reviewer only had to click on the actual picture mentioned in the comment to see the positions and charges of the components of the atom. It is an interactive digital picture. We use them extensively because they are more effective from a cognitive perspective than “flat” pictures.*
- “Information about mitosis but not meiosis” *Again, the information is in the materials, only one click away from the page the reviewer was at. The materials use the interactivity of digital channels to make the learning process more active and effective; but the user has to click on the content to actually trigger interactivity.*

As a comparison, reviewers that clearly had experience navigating digital solutions and mastered the process made comments like:

- “Excellent amount of rigor, the students would not be bored.”
- “There is material not covered in the standards, but not a lot [...]. Almost all of the DCIs were covered in a clear, concise manner.”



Secondly, some of the feedback received for the first round was not too informative. We are aware that some of our reviewers had to be exchanged at the last minute for personal reasons. We understand that could explain why we did not receive the level of feedback we expected. In this area we would like to highlight three reviewer rubrics (out of 9 for this round):

- One rubric was not an actual document but a picture of the first page of a document (a JPEG file instead of a DOC or PDF file). As a clarification, the first page of the rubric does not have any of the specific questions in the rubric, but only general information about the title under review: Not too informative to us.
- Another reviewer produced a rubric that had the answer “Password never received” for all questions; despite we had sent logins and passwords for all reviewers.
- A third reviewer produced a rubric that had a simple “NO” for all questions, with no further details. Maybe for lack of a password too? We do not know, but all the rest of rubrics that could actually access the materials had some “YES’s”.

Appeal round (*Section 1 and Section 2 reviews*)

Resulting from the nature of the feedback, Science Bits appealed the results of the first round and submitted enriched and rearranged content to make it easier for reviewers to complete their rubrics successfully:

- We deleted the reviewer accounts of the first round.
- We created 18 new accounts (9 teacher logins and 9 student logins). Within each group of 9, there were 3 for each grade in Middle School.
- We enriched the content to address some of the comments regarding not adequate coverage of TN standards. We had received a very limited number of them, but we had received some.
- On August 11, 2017 we submitted the new accounts and materials to the Office of the Director of Content.
- On August 12, 2017 we did a 15 minute webinar to the reviewers to explain the new submission, as well as some very short PD about the specifics of navigating Science Bits digital content. The 15 minute duration was a constraint of the process. We would have loved the opportunity to spend more time with the reviewers in order to help them understand the nature and navigation of next generation instructional materials even more, but we followed the rules. Had the presentation time been longer, we would have done the session face to face in Nashville.



The result of this appeal round was a “Pass” for our grade 6 materials and a “Not Pass” for our grade 7 and 8 materials. Reviewer feedback for Section 2 reviews of grade 6 materials was also provided, with very positive comments.

However, given the different nature of the new submission, we supposed the appeal would result into the repetition of some first round reviews, but we were very surprised not to receive any additional feedback from those repetitions.

The nature of internet based digital content means that all content is accessed from our servers, where the platform is hosted. The servers keep log files of all activity in the platform. We do not normally track that information, but trying to understand if all the effort put into the appeal round was effective, we discovered that:

- As of September 6, 2017 only 3 of the new accounts submitted on August 11 have actually been used. 15 accounts were never used.
- All of the accounts actually used were for grade 6 materials.
- One of the 3 accounts actually used only spent 5 minutes on the platform, which seems very limited time to perform all the verifications requested in the rubric.

We can provide a notarized public deed that certifies all these facts in case the Commission or the DoE needs evidence to support a discussion with the actual reviewers.

In light of that information, we have to conclude that the reviews for grades 7 and 8 were never performed thoroughly in the appeal round. The Commission will understand why it is difficult for Science Bits to agree with the result of that round.

We are only asking that the materials submitted to the appeal are actually reviewed. If we went through all the effort to rearrange the content; add the missing components; simplify access for reviewers; etc. the least we can ask is that the actual appeal review is conducted.

We would kindly request that these reviews are conducted by new reviewers who are not biased by the information disclosed in this letter and, ideally, have some experience reviewing digital instructional platforms.

If the Science Bits solution does not comply with the requirements of the Tennessee Department of Education, then we would kindly ask that we receive useful feedback about the reasons for that lack of compliance.



As a side comment from practical experience, we believe that no school or district will make the effort to adopt a new innovative curriculum for grade 6 only. If administrators and a science team decide to go through the effort to change their instructional model and materials with improved 21st century technology, they will request that this effort can be leveraged at least for the 3 years covered by Middle School. It is human. We understand this consideration may be beyond the scope of this adoption process, but we are convinced the final driver for us all is to improve the quality of teaching and learning in our education systems.

As discussed in the introduction, more than 100,000 students, 5,000 teachers, 18 awards and research from prestigious organizations prevent us from anticipating in what respect the students of Public Schools in Tennessee shouldn't be allowed to access Science Bits, but if there are reasons, we would love to know them, so we can improve our service to them and to you.

In the end we all share the vision of providing excellence and equity such that all students of Tennessee are equipped with the knowledge and skills for their chosen path in life. In our view, excellence includes innovation and 21st century skills that can only be taught with instructional platforms similar to what we are working to create and would like to offer to the students and teachers of Tennessee.

With kindest regards.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jordi Majo". The signature is fluid and cursive, with a large loop at the beginning and a long horizontal stroke at the end.

Jordi Majo

President

Learning Bits Inc.
