Peer Review Proposal For
Sugar Labs Developers

Prepared by:
Samantha Hyrns
Brandon Rymas
Donovan Wentworth

Edited by:
Emily Day-Cervenak

Oakland University

INTRODUCTION

Peer review of writing has been documented as a useful learning tool, for both the giver and the recipient of the feedback (Cho, 2011). Our "Literacy, Technology & Civic Engagement" class is working on a project aimed at advancing literacy learning opportunities within the Sugar framework. As such, we believe that peer review components should be developed and implemented for both preexisting and new Sugar activities.

This report investigates and outlines the potential benefits of formulating a peer review component to supplement Sugar Labs' literacy-based activities. A peer review component would enable a new line of communication between students, their peers, and educators, as well as enabling students to learn through firsthand experience by editing the work of others. The peer review component would also allow students to receive feedback from classmates and teachers for classroom assignments.

METHODOLOGIES

Our group reviewed numerous Sugar activities with the potential for an added peer review and editing. Non-Sugar compatible programs that contain peer review applications were also researched and evaluated. *(WHICH??)* Facets of each were evaluated and compared to determine the most optimal attributes for adaption and implementation into Sugar activities.

RESULTS

Non-XO programs that we have found to have valuable peer review or collaborative components include:

Google Docs - An online document builder, editor, and sharing platform that allows users to collaboratively edit, revise, and discuss shared documents. It includes a commenting component like Microsoft Word and OpenOffice, but goes above and beyond to also allow real-time editing and collaboration between users--something which could be a very valuable peer review tool.

Microsoft Word - The industry standard's word processor, Microsoft Word's main peer review component is simply the commenting option which is also available on Google Docs and OpenOffice.

The Moodle system - A virtualized classroom environment, The Moodle system allows for different

classes to be organized into forums. Students' work can be published to the forums where both teachers and other students can then provide feedback in a threaded conversation. This asynchronous online communication is similar in nature to the comment ability found in the previous word processors, except that it easily enables a more extended, lengthy conversation which can include more individuals, making it a more powerful tool with which to give and receive feedback.

OpenOffice - An open source office application suite that includes word processing, spreadsheets, presentations, graphics, and databases, all written in the C++ programming language. It includes a commenting component like the one found in Microsoft Word. The advantage that OpenOffice has over the other options is that it is free and open source in nature (similar to the OLPC's Sugar OS), which allows for easy and legal borrowing of the code that enables commenting. Adding to the ease of implementation for the Sugar OS is the "language-neutral and scriptable functionality" of OpenOffice's source code (OpenOffice, 2011).

Preexisting Sugar activities with potential for peer review purposes include:

Write - A basic word processing application that ships standard with all the XO Laptops. "It ... supports basic tools for inserting images, creating tables, and performing basic layout operations" (Sugar Labs, 2011b), but it currently has no peer review component. Our research has found peer review components in similar word processing applications like Google Docs, Microsoft Word, and Open Office in the form of adding comments to selected portions of hypertext. Such a component could be a valuable addition to the Write application. Google Docs also has real-time collaboration components, such as being able to view and chat with other editors of a shared document, which could be a valuable collaborative or peer review component.

Edit - An XO application created by ntt, it is described shortly as "a simple collaborative plain-text editor" (Sugar Labs, 2010). We have attempted to download the application to study it further, but have not yet succeeded.

OOo4Kids - An adaptation of OpenOffice for the XO Laptop and Sugar OS (Sugar Labs, 2011a). It could possibly already contain a component for leaving comments on others' documents; if it doesn't, it

could possibly be easier than the Write application to add such a component. Unfortunately, like the Edit application, we have yet to be successful in our efforts to download and investigate.

RECOMMENDATIONS & CONCLUSION

To potentially improve the learning environment of all current and future XO-using students, we encourage these programmers to develop a peer review application or tool that can be integrated into existing XO programs.

We recommend that developers:

- Implement a component to the Write application allowing students to leave comments on each other's documents (similar to what is possible with Google Docs, Microsoft Word, and OpenOffice)

- Implement an editing program similar to Microsoft Word's "Review" feature to allow for edits and comments without completely removing the original work. This would allow students to learn for themselves from the work they have done by visually seeing all the changes that have been suggested and recommended.

REFERENCES

Cho, Kwangsu. (2011). Learning by Reviewing. *Journal of Educational Psychology, 103*(1), 73-84.

  Retrieved on November 26, 2011 from: http://huaryu.kl.oakland.edu/login?url=http://

  search.proquest.com.huaryu.kl.oakland.edu/docview/849705034?accountid=12924

OpenOffice. (2011). Historical Background. *About OpenOffice.* Retrieved on November 26, 2011, from:

  http://about.openoffice.org/index.html#history

Sugar Labs. (2010). *Edit 8*. Retrieved on November 26, 2011 from: http://activities.sugarlabs.org/en-US/

  sugar/addon/4349

Sugar Labs. (2011). *OOo4Kids 2*. Retrieved on November 26, 2011 from: http://activities.sugarlabs.org/

  en-US/sugar/addon/4241

Sugar Labs. (2011). *Write 77*. Retrieved on November 26, 2011 from: http://activities.sugarlabs.org/en-

  US/sugar/addon/4201