

IMLC User Interview Report

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Executive Summary

We interviewed current users on the usability of the WeCollabrify suite of applications developed by our client, IMLC. Our research consisted of six student interviews and one teacher interview at St. Francis of Assisi Catholic School, Ann Arbor. We also observed a larger group of eight students using one application, WeMap, to organize information for a group science project.

One issue that we found is that although the applications are often used in the classroom and on take-home work, they are not used for studying or reviewing despite the fact that users can save any collaborative work session as a local tablet file. This means that some features of the applications are unused. A few minor usability issues also emerged with finding and participating in group sessions; they are difficult to find unless the spelling is exact. Students also mention that there is no way to regulate who is participating in a session and that they are frustrated with fellow classmates moving elements on the screen without approval.

Our recommendations include fixes to the functionality of the applications that would address specific problems. For example, we recommend that additional sorting choices should be offered for saved files, such as auto-completed text for saved files and being able to sort alphabetically. We also recommend re-introducing functions like printing and file sorting to the users in case the users may not be aware of them.

We also recommend that some regulation be added to group sessions. For example, we suggest that while individual users should be allowed to customize their view of the concept maps, the overall relationships between the nodes should stay the same for the entire group. We also suggest a fix for the resizing and customizing the view on WeChart.

Overall, the students appear to be engaged the applications and have no major complaints about usability. However, the teacher expressed concern that frequent use would gradually lessen the novelty and therefore the students' interest in classroom activity via the applications; furthermore, they do not appear to use them outside of the classroom. We compared the WeSketch app to a similar app targeted to young people and suggest ways in which the presentation and customization of the products could be enhanced.

Introduction

Our client, the Intergalactic Mobile Learning Center (IMLC), has commissioned SI 622 Group 10 to evaluate a suite of applications that are combined into a platform called WeCollabrify. These applications allow students to work together to research and complete assignments. In this study we leveraged qualitative and quantitative methods of usability testing to figure out the pros and cons regarding these applications from the users' perspective, and provide recommendations to improve them.

According to IMLC, these applications are intended for K–12 students. However, the current pilot group consists only of eleven- to thirteen-year-old students in Singapore and Ann Arbor. Our first study is comprised of interviews with the Ann Arbor students, but constrained to members of the classes taught by the teacher working directly with the developer team. In this study we are trying to identify problems encountered using the applications as well as the overall technological literacy of the students that may influence their use of the applications.

The four applications addressed (WeMap, WeKWL, WeSketch, WeChart) are mobile applications built for iOS tablets (WeMap, WeKWL) and Android tablets (all four applications). WeMap coordinates the creation of concept maps by allowing a group of students to specifying ideas as nodes, node locations, and the relationship between nodes. WeKWL allows students to collaboratively document their knowledge in tabular form before and after lessons. WeSketch is a (non-collaborative) bitmap editing drawing tool with frames which can be sequenced for animation. WeChart is a collaborative spreadsheet application designed for documenting collecting data. At St. Francis, students work in groups of four (at most), with one student “captain” creating/leading a work session using one of these applications. The students have been using the WeCollabrify platform for the past four months and are comfortable with them. The applications can share outputs to a web-based teacher’s portal.

In our client negotiations we agreed upon investigating the following questions:

1. How are students and teachers interacting with the application? How can we improve users' interactions with these applications?
2. How do these applications affect students learning process? What is the engagement level for the users?
3. What are the problems that these applications are resolving for them?
4. What are the (potential) usability issues of the application?

Methods

We conducted interviews of the class for which the applications are being piloted after the end of a school day at St. Francis of Assisi Catholic School in Ann Arbor. Two science classes taught by the same teacher have used WeCollabrify for four months. Student interviewees consisted of

six 7th grade students: two girls and four boys. We also interviewed the teacher. The interviewees were recruited with the help of IMLC. One of the students had to leave halfway through his interview.

Four student interviews lasted around 15 minutes. Two students were interviewed for 30 minutes (these students in particular were enthusiastic about talking to us) and the teacher for 45 minutes. A few basic questions were first asked to collect demographic information and technology adoption. Then the interviewees were asked application-specific questions to help us understand their attitudes and interactions with the applications.

We also conducted observational studies of eight students working on the applications collaboratively. Students were asked by the teacher to create concept maps of the coaster car experiment in which they built a mini-vehicle and tested the kinds of materials and planes that would increase its speed. Notes on their interactions with the application and each other were recorded. After the interviews and observations, we shared the notes and the entire group did interpretation sessions together. We paid particular attention to exploring similarities and differences on the opinions and interactions with the applications among the interviewees, as well as the breakdowns in using the applications.

We also did a brief comparison of WeSketch and KidPix (Software MacKiev), a drawing application made specifically for children. Prior to this study we also created an interaction map of two of the applications (WeMap and WeKWL) which assisted us in formulating the findings and recommendations listed below.

Findings and Recommendations

Finding 1: We found that the functions of the applications are being used in different ways than intended or not being used at all. For instance, locally saved tablet files are underutilized. For each instance of a generated file, once the first and only session of collaboration on that file completes, the file is not used in future class sessions or work. The teacher does not emphasize reuse of files for keeping data or studying. She actually prefers to have the data in a physical notebook rather than in the app as she finds the notebook to be “more permanent” and offers her more control when teaching lessons. In the current process, students would manually redraw in their notebooks the charts they created on WeCollabify. Then, the teacher just has to tell the students to go to specific pages.

One reason for the teacher’s perception is that the navigation of files in these applications is not user-friendly. Users have to navigate through long lists of saved files to locate the one they need. Because the files in the applications do not have a naming convention and are not labeled automatically with the same name, it becomes difficult for the instructor to direct the students to a previously saved file (unless the students were instructed to save the files under the same names).

Compared with the applications mentioned above where students need to collaborate, we

realized WeSketch is only used individually. Students are asked to draw animated illustrations for science topics such as heart flow and cell division using separate frames in the application. The application helps them quickly generate a shared background (such as the heart in a heart flow animation) across the frames. In contrast with the applications mentioned above, files generated by WeSketch are preserved and reviewed in a teacher's portal as many of them are of higher quality. WeSketch is favored by several student interviewees as it provides them with a useful toolkit to draw what they understand about the subject.

Finding 2: The applications overall are considered easy to use by the interviewees, but during the observation and the interviews we discovered minor usability issues in the system. The first one is with finding the right sessions. One student mentions it is confusing to find the session; we also observed that members of the group had to confirm the correct spelling of the group name several times before they were allowed to join. It is a shared opinion among students that a function to kick people out of sessions is needed, as non-group members can disrupt group sessions.

Students also mention that it can be messy when collaborating in WeMap, which can be a result of poor navigation setup. Sometimes User C doesn't like people moving nodes around in the map and feels nothing sticks in the map. This issue is also demonstrated by the fact that students often yelled, "stop moving around!" when we observed them collaborating via WeMap.

Another problem lies in the navigation of WeMap. User A mentioned that it took her a while to realize that she had to use two fingers to drag and navigate the screen.

The teacher and User D also mention an issue related with resizing in WeChart. Rows and columns can not be added once they are in the bigger mode.

Finally, the teacher wanted to let us know that it is troublesome to connect with student accounts in teacher's portal. The teacher had to type in the names and emails of the entire class in order to connect her account with her students. Thus it is suggested to allow teachers to import a student list directly into the portal.

Finding 3: The biggest benefit of the apps are their capability of engaging the students, and thus this should be maintained in future versions. The teacher believes WeCollabify is effective in facilitating collaboration and that students are more engaged in class lessons when using them. Another evidence for this observation is that one student feels that the classroom is quieter when students are collaborating using WeMap. Enhanced engagement is what the teacher values most from adopting in-class technology.

Finding 4: It is essential to preserve the novelty of in-class application use for the students. The teacher currently keeps the usage of the applications below three times a week so that students will not feel bored with them. It is also important to maintain an interesting

graphical interface of the applications.

Recommendation 1: Evaluate UI for file navigation/use

The teacher and the students mentioned that they usually don't retrieve saved files because work that is needed for review is stored in a physical notebook; they pointed out that it is easier for them to refer and navigate to those files than what is allowed by the current app. Thus we recommend improving the navigation of files in the application. For example, you may allow users to sort the files with dates or subjects. Another solution may be to allow the system to automatically name the file the same as the session name so that not everyone has to specify the file names. We also suggest evaluating whether the teacher and students feel it is necessary to save files in WeMap. If there is no other major use for saved files, we recommend reducing the visibility of features with minor functionality in the UI.

Recommendation 2: More research needed for function awareness and use

If the information is needed for future use, students handwrite the contents of applications in their notebooks. Otherwise, saved sessions are no longer used. We recommend evaluating some of the possibilities for this. For example, are they aware that they can print sessions? Does the print session actually work on the applications. Is there an affective reason that the teacher does not seem to favor the applications as a tool for permanent information storage for later use? In our surveys we are going to figure out which of these possibilities is true.

Recommendation 3: More options for creating/joining sessions

Most of the students and Sister Rebecca expressed problems with finding other users, sessions and files. We recommend three options as solutions:

1. Adding an auto-complete functionality to the search boxes;
2. Allowing sorting of files alphabetically or chronologically;
3. Allowing searching of files by name or maybe the nodes inside if possible so that teachers and students may go back to them more easily.

Recommendation 4: Resizing/customizing WeChart

Sister Rebecca and students have resizing problems with WeChart. Rows and columns can not be added once they expand the view. Also she could not relabel the rows and columns. We recommend fixing the resizing issues and allowing for more customization.

Recommendation 5: Evaluate WeMap node locations

In our observations of students collaborating on WeMap, the repeated expression was "don't move that," expressing frustration with others moving nodes around. Thus one solution may be to provide each user a unique view of the map while they are working collaboratively, but retain the same relationships between nodes, labels and descriptions in the group. If the labels and descriptions of the nodes and their relationships are separated from the distribution of nodes on each tablet then this expressed frustration would be addressed. However, this suggestion remains to be tested in future researches. We recommend evaluating whether the location of the nodes is important.

Recommendation 6: Navigation fixes

Students report taking time to figure out two-finger dragging required to navigate the map. When the user swipes on the empty space, a line is drawn, however when the finger is released from the screen, the event for creating a new node is called. We recommend taking a look at the gestures needed to generate a new node, one possible event that could be less confusing for the user would be using two taps to generate a new node.. This recommendation would also reduce the possibility of accidentally generating new nodes by simply touching the screen. So if the event is only called with two taps, this accident could be avoided. This way, the user is able to navigate the map using only one finger .

Recommendation 7: Maintaining interest

Currently the students do not use these applications outside of class. In order to keep kids engaged with the platform, we recommend adding appealing optional features. We compared WeSketch to a similar drawing application, called KidPix, wherein sounds are attached to drawing functions. Considering students are drawing individually with the application, it is feasible to add an option for sound without interfering with class work. Another alternative could be exploring the addition of new colors and drawing options (brushes, line and border styles).

Discussion

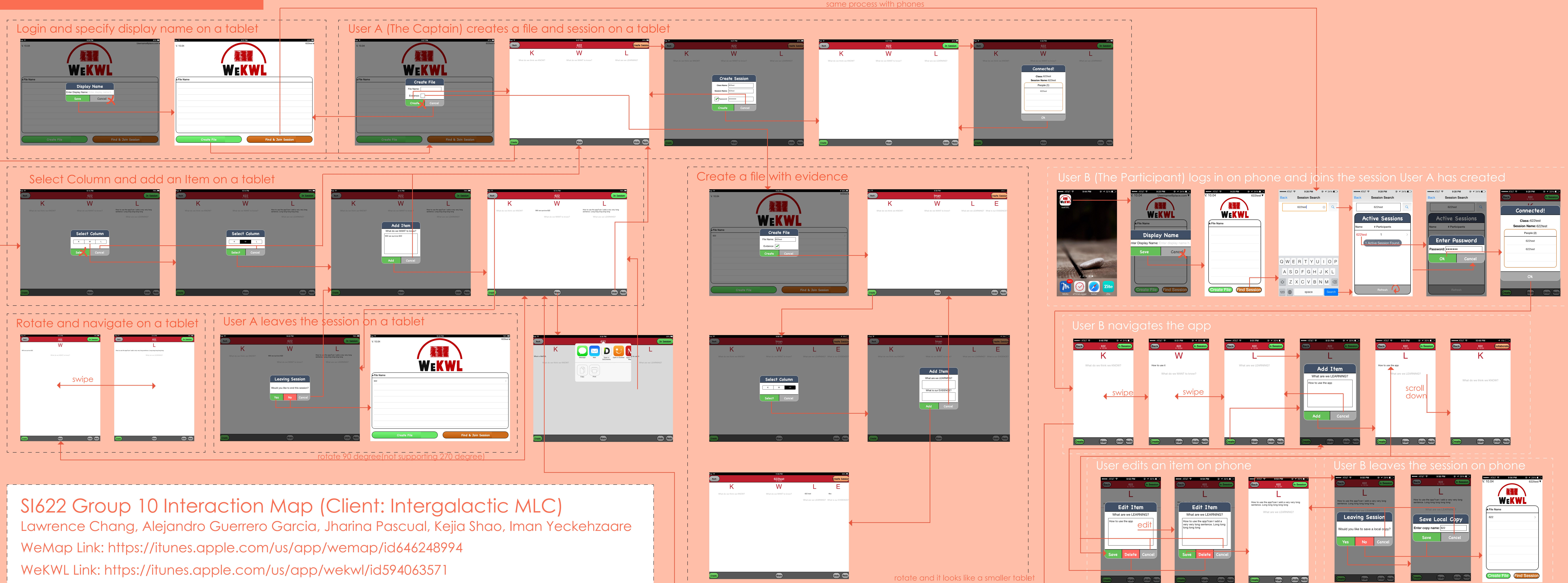
We are aware that our interviews focus on a population of students who have a high baseline exposure to technology. Each student interviewed had at least two computers and two tablets available at home; the interviewees spent between 15–60 minutes of non-class-related time on these devices. They also use applications in other classes like Google Docs and Duolingo. Overall, students spend anywhere between 1–3 hours on these devices a day. The pilot groups consist of students from populations of high level of scholarship and an upper middle socioeconomic class. Given this student body composition, the findings may not be generalizable to populations where access to technology is widely varied or more limited. Thus, further research on a more varied student population should be conducted if the developer team plans to expand their market to students from different backgrounds. There is also only one teacher who is an active user of the suite; getting another adult who can find time to interview or take a test on short notice is unlikely. We have also considered getting users from outside this population to conduct our tests, but this kind of data gathering would take a time needed for analyzing data and producing reports.

Another limitation of this study is that we are not just testing one app, but a suite of four applications on one platform. Furthermore, these applications are designed for collaborative use, so individual interviews only provide a partial perspective on how they are actually used. Given the time frame for this project, students' availability and the limitations on making kids focus for more than thirty minutes, we will not be able to observe and test the functionality of each of the applications for individual students and for group sessions. We would have to construct our usability tests to be brief but still provide detailed information about all four applications.

WeMap Mobile App



WeKWL Mobile App



Conclusion

Our research on behalf of IMLC resulted in clarifying the usage of the applications in the WeCollabify platform in an Ann Arbor middle school classroom. Our interviews with six students and their science teacher revealed that while there are a few frustrating and/or unused aspects of the user interface, overall the applications are easy to use and are facilitating successful collaborative work between the students. We suggested a few fixes for the navigation and customization functions. For our part, we hope our continuing research will help the IMLC team clarify what functions need to be advertised to the users and/or identifying ones that are not needed. We also want to emphasize that developing a menu of future user interface options will maintain the novelty of the products in the classroom, which will keep the students engaged with lessons.

However, we realize that our research is not generalizable to populations that do not share the Ann Arbor students' facility with technology. We recommend that research be performed with students who have more varied or limited backgrounds in technology. Overall, however, we feel that these students' positive attitudes towards collaborative learning suggests that they would be appreciated in many educational contexts.

APPENDICES

The following are the material we used to conduct and analyze the interviews. Appendix A are three personas we constructed from the information we gained about users in the interviews. A persona is a fictional character created to represent a certain type of users. It is intended to provide more tangible understandings to the background of the users and their expectations of the system. Each persona is followed by a scenario that we think is somewhat typical of the user's interaction with the application. These scenarios help understand the context of using the application and users' goals in these contexts. Appendix B contains the interview guides we used for the students and the teacher, which should provide an idea of how we tried to answer some of the design and functionality queries presented by the client. Appendix C is comprised of the actual notes taken of the interviews.

Appendix A - Personas & Scenarios

Persona 1: Tamara Joyner

Background

Age: 12

Occupation: 7th grader

Hobbies: Art, board games

Technological Exposure

Tamara has 2 laptops available at home. She has 1 tablet and regards it as a very personal possession. She spends 2 hour in total every day on all devices -- 1 hour on school related work, 1 hour on fun stuff.



School Performance

Tamara is a part of the debate team and is an established leader of the team. She is liked by everyone but is unaware of this. Tamara gets a mix of A's and B's in her classes; she spends time on her work, and she enjoys doing it. Tamara enjoys working with other students in class.

Goals

Tamara uses WeMap in class because she is required to. She hopes to collaborate in a friendly way with her group members. She is conscientious and knows the WeCollabify application very well. Knows most of the gestures well.

Scenario 1

The science class is covering the human circulatory system. The students are first asked to discuss among themselves in groups of four. It has been a month since the group listed what they initially about the human circulatory system in WeKWL, and now they are putting what they have learned into the period in the same file.

As a captain, Tamara opens the file they have created a month ago. It takes her a while to navigate, as she thought she named it as “circulatory system” before. She scrolls the list down to “C” but finds nothing. Her second guess is “human circulatory” and this time she gets the file. She creates a session from the file and indicates its name to the three other students in her group so that they can find and join the session.

Then Tamara together with other students add what they now know about the circulatory system to the L column of the WeKWL. When they are done, Ms. Ryan joins their session and reads aloud their summarizations. Tamara and her group are happy with it.

After that, Ms. Ryan assigns her students to create a concept map showing the relationship between different parts of the body with WeMap. Tamara creates the session again, since she is the captain. For WeMap session is created first, then the file is created. Tamara names her new session “Wildcats” and asks her teammates to join this session. Then she creates a file called “Circulatory System Map.” She takes the lead by adding the first node in the map, which in this case, is a node that contains the word heart. Then the other students keep adding nodes that are related to the heart. Then relationships are established hierarchically just like the human circulatory system is.

At first Tamara is not sure what she should add to the nodes, as she has not completely understood circulatory system. But soon she is reminded of what the circulation is like as her teammates starts to add details around the central node “heart”, such as “systemic arteries”, “CO₂” and “aorta”.

As the number of nodes grows, Tamara wants to zoom out the map, and navigate through it have different various of different parts of the map, but when she drags her finger on the map, a curve appears and disappears as she finishes dragging. She asks Dave, and Dave tells her to use two fingers for this purpose. It is frustrating for her, because using two fingers is not usual, and it is not consistent with other interactions.

After 30 minutes the teacher tells the students to finish their task. So after rushing her teammates, Tamara saves a local copy by the “save a local copy feature”. Tamara volunteers to present the process to the class after the discussion ends as now she understands it.

Persona 2: Ms. Ryan

Background

Age: 32

Occupation: science teacher

Hobbies: Reading, experiments

Technological Exposure

Ms. Ryan has a computer and a tablet. She has basic computer skills. She knows enough to handle administrative and grading functions online, but her only non-work related time on the computer is checking e-mail, and she only spends half an hour every day.



Education Ideas

Ms. Ryan does not consider herself “tech-savvy,” but she believes teachers should prepare students for the future. And this is why she embraced WeCollabrify as soon as she was introduced to this application. She cares less about the technology itself than getting students engaged.

Goals

Ms. Ryan readily embraces WeCollabrify because she hopes to raise technological exposure among her students, as she believes technology is the trend and she is responsible for guiding her students to the trend. Another goal of using the system is to keep students engaged in in-class discussions. She finds the system is quite effective in achieving this goal.

Scenario for Ms. Ryan

Ms. Ryan is teaching the coaster car experiment this week. She has been using WeMap in class for several weeks. Today she decides to introduce WeKWL to the class. She intentionally keeps the lag between the introduction of these two applications to make sure students are excited about these applications.

Since students are already familiar with the applications, she doesn't have to give very specific instructions regarding how to use it. Before teaching her lecture on circulatory system, she asks all the students in her class to open the WeKWL application. Also based on her experience, she believes the best way of teaching students to use technology is to let the students use them without too many instructions. In addition, the class is familiar with the KWL chart format from their science textbook (what we **K**now, what we **W**ant to know, what we **L**earned).

As the interface of WeKWL is similar to WeMap, which they have been using for some time, the students quickly understand the functionalities and successfully create sessions. Most problems are handled within the groups.

Once everyone understands the application, Ms. Ryan asks them to type in what they already know about the coaster car experiment. She notices that Tamara's group is quieter than usual, so she logs into their session to check what is going on. She is glad to see that all of them are actively contributing contents to the list. When the 15-minute time limit is reached, Ms. Ryan tells her students to stop and asks the groups to share what they have typed.

After class Ms. Ryan spends two hours on reviewing the assignments on the sketch of heart flow the students have completed yesterday. She opens WeCollabify and sees a list of WeSketch files. She opens the assignment of James and clicks the play button. An animation of blood flowing around the heart is displayed on the screen and she is pretty amazed at it. She also notices that James has used different colors to illustrate the direction more clearly. Since the assignment illustrates the point perfectly, Ms. Ryan plans to show it to the entire class tomorrow. Tomorrow the class will be doing the real experiment and will not use WeCollabify because Ms. Ryan is concerned that using the same applications all the time will reduce students' excitement of using tablets in class.

Persona 3: James J. North

Background

Age: 11

Occupation: 7th grader

Hobbies: Video games, helping his father build/fix things



Technological Exposure

James has 1 computer and 3 tablets at home.

He spends 1 hour daily on class-related work and 2 hours on other stuff. He uses Google

Drive (Doc, specifically) to write and organize his essays, and uses Duolingo to strengthen his Spanish after class. There are a few games in his tablet and his favorite is Angry Birds.

School Performance

James cares about doing well in class, but is clever enough to commit just enough to succeed in class. He has mostly gotten A's in classes, so he is considered a good student, but he doesn't have to try very hard to get those grades. He is not part of any student groups or after-school activities at the moment. James likes doing artwork on his own.

Goals

James wants to get the in-class work done without deviating. He thinks collaboration is necessary but sometimes he thinks he is more efficient working alone. He is somewhat impatient with helping others when they are struggling. He doesn't offer much assistance to other classmates as the tasks all seem intuitive to him.

Scenario for James

James is participating in the same class activity as Tamara, but he cares less about working with his classmates than getting the required assignments finished. He is assigned to a different group from Tamara; he is not the group captain, so he has to join his group's session. The captain tells the group the session name is "seven one science", so he typed in "71science," which turns out to be non-existing. The other members are already in the session and start discussing the nodes. James gets worried and yells out for the session name, "71science? no space?" The captain checks the name and says, "Oops! Sorry, '71-space-science.'" James finally logs in.

The group initially has an extra person joining the session, and James is annoyed with this interruption. He has to tell this person that he is in the wrong group. However, the interruption gets everyone off-topic and they end up discussing another assignment for the first two minutes. He is unhappy with this as well.

James gives up on getting other people's attention and creates nodes that relate to the major body systems. Other students create connecting nodes with labeled with parts of the body. However, sometimes he feels offended when people are moving the nodes he created. He notices a blue node "crooked wheels" near the center of the map but does not really understand it. To put less emphasis on it, he turns it into white. Finally the group come up with a satisfactory map and the captain presents it to the class.

In the evening, James does the assignment of sketching the heart flow. He decides to utilize the animation function of WeSketch to demonstrate it. He has used it several times and is quite familiar with it. He first creates a shape of the heart in the first frame and then copy the frame ten times so that he doesn't have to draw it again. He then draws how blood flows in and out from the heart. At first he uses black, the default color to illustrate blood coming out of both left and right heart but finds it confusing. After consulting the textbook he decides to use two colors - blue and red - to illustrate the difference between veins and arteries. In total he draws 12 frames. James hits "play" and reviews the animation he just created. He is happy with his work.

Appendix B - Interview Guide

Interview Guide - Teacher

Script:

My name is _____ and this is _____. We're going to ask a lot of questions, and we would like your answers to be as detailed as possible. We want to know exactly what's bad or what's good about these tools.

We will also be writing notes while you speak. If you don't want to answer a question, feel free to tell us that you want to skip it; you are also welcome to stop the interview at any time. If you have any additional feedback, you are also free to e-mail us. [Present card/e-mail]

Basic Info:

1. How were you introduced to these applications?
 - a. And what did you think about its potential?
2. Do you have other kinds of technology that you use outside of class? How much time do you spend on it?
3. Do you take out the tablet as soon as you get into class?

App-Specific:

4. How frequent are these apps used in class? What tasks do you ask the students to perform in class?
5. Which subject have fit the app well? How so?
6. What is the reception from the students? Why?
 - a. What effects have you seen so far on student learning?
7. Have you spoken about these apps with your colleagues?
 - a. What do you feel is a barrier for teachers to adopt them?
 - b. Why do you think other teachers don't want to use them in class?
8. Are these apps effective? How do you test their effectiveness?
9. Do students need help using these applications? How much help? Do you need help when you were using these applications for the first time?
10. What happens when you join a session?
11. Is there an application that you really like to use? Why?
12. Is there an application that you really don't like to use? Why?
13. Do you prefer using the applications on a phone or on a tablet? Why?
14. Favorite features.
15. Problems/ Suggestions for improvement.

Context:

16. Do students need help using these applications? How much help?
17. For what kinds of lessons do you use the applications?
18. Do you find it easy/hard to integrate the applications into the lessons? Why?
19. What kinds of lessons work with the applications? Which ones don't work as well?

Interview Guide - Student

Script:

My name is _____ and this is _____. The people who created the applications on WeCollabify asked us to look into how you and a few other students are working with them in class and what your opinions are. We're going to ask a lot of questions, and they are going to be very detailed. We ask that your answers be also as detailed as possible, because we want to know exactly what's bad or what's good about these tools. We will also be writing notes while you speak.

We do ask that you sign the consent form here so that we can confirm that you understand what we're doing and that you are okay with us asking you these questions. However, if you don't want to answer a question, feel free to tell us that you want to skip it; you are also welcome to stop the interview at any time. If you have any additional feedback, you are also free to e-mail us.

Basic Info:

1. What is your name?
2. What grade are you in?

General Technology Use:

3. How many computers and tablets do you own at home? Do you take the tablets to school? Or does the teacher give it to you at school?
4. How much time do you spend on it every day? (or every week)

App-specific:

5. How do you start using the tablet in class?
6. Have you used WeMap, WeKWL or WeSketch?
 - a. Who do you use these apps with?
 - b. **Why** do you use this apps? but Why?
 - c. What kind of tasks do you use these apps for?
 - d. What is your favorite feature about these apps?
 - e. What do you hate about these apps?
 - f. Have you gotten stuck using the app? Is there anything broken with the app?
 - i. Can you describe?
 - g. What was confusing when you started using it for the first time?
 - h. Can you show me how you use WeMap, WeKWL, WeSketch?
7. Do you think that using the applications in class helps you learn the lessons better? Why or why not?

Section 5 Appendix A

8. Is there an application that you really like to use? Why?
9. Is there an application that you really don't like to use? Why?

10. Do you prefer using the applications on a phone or on a tablet? Why?

Context:

11. For what kinds of lessons do you use the applications?

12. What do you think about classes where the teacher does most of the talking?

13. What do you think about classes where there's a lot of discussion?

14. When you want to get together/hang out with your friends what do you say to them?

Appendix C - Interview Notes

We interviewed 5 students (not including Nathan, who had to go home half way through the interview) and 1 teacher (Sister Rebecca). All the students interviewed are in 7th grade, although Sister Rebecca is also using the app with 8th graders.

They use WeCollabify in class on Android tablets. They think WeCollabify is the “app” and WeMap, WeSketch, WeChart, WeKWL as parts of the app. WeKWL is known as “Project Board” to them. Students have been using the app for 4 months (only in Science classes).

User A: Mia

Mia has 3 laptops for her family and 1 tablet for herself. She spends 2 hours on these devices every day.

She likes WeMap best because it is flexible, as she can do many things on it. She likes it also because she can go back to the maps and review them. Mia doesn't like the way of navigation in WeMap - she has to use 2 fingers to drag the screen. Also she doesn't like the “save” function. She feels it is confusing to find the sessions.

Mia believes WeCollabify is helpful because it helps her organize information. she can type in what she has learned, save them, and go back to it when needed.

Mia prefers to study with her classmates because it helps people understand what is taught. Information can be shared with everybody.

User B: Nathan

1. Computers: 2 tablets: 3
2. Nexus 7
3. How much time on tablet: 3 hours total, an hour for non-class work
4. Calculators
5. Homework: slide-show of cell
6. WeChart:
 - research on bacteria
 - blood types
 - group work

User C: Emma

Emma has 1 ipad, 1 ipad mini and 1 computer at home. In total she spends 1 hour a day on these devices and about half of the time is spent in class.

Emma uses WeMap to organize notes to the lecture in the class. Around 3-4 people work in a session in class. One person creates the session, others join and they will decide who's going to do which parts/subtopics. Sometimes she doesn't like people moving nodes around in the map. She can't recall any confusion/anything stuck when using WeMap.

They put what they already know in the K node before a lecture is given. Then they will put what they are learning and what they have learned in W and L after the lecture.

They use WeSketch alone where they iterate things.

She enjoys WeSketch most because she likes drawing diagrams.

Emma likes all the apps and she prefers to learn with other students because it is important to learn with people.

User D: Jack

Jack has 3 tablets and 4 computers at home. He spends 45 minutes doing homework and 1 hour for non-class things on his tablet every day.

He uses WeSketch alone and draws course-related stuff such as a diagram of human body. He thinks it's good to have different colors and lines in the app. He thought it was hard to draw using fingers to draw but it works.

He likes WeMap best because he likes chart things. Also he thinks it is the easiest to look at. He thinks the apps are enjoyable and better than doing the same tasks with paper-and-pencil. Nothing was confusing the first time he used the apps.

Jack prefers to work together with other students.

Students mention that they want a function to kick people out of sessions because people go to random sessions when switching the groups. Or just tell people you are in the wrong session.

Teacher: Sister Rebecca

Survey & Usability Test

Sis. Rebecca can distribute the survey to 40 7-graders and 50 8-graders at most. The best time to do usability tests is on Thursdays 3:30 p.m..

Introduction to the system

Prof. Soloway hired her friend 3 years ago and the friend asked her to try the system at school.

Technology Adoption

She doesn't have a cell phone. She uses the school's laptop and her computer at home. Outside school she uses these devices for about half an hour every day.

They use the tablet in about % of the classes. It depends on her teaching plan.

WeChart

"They created it because I use it."

She uses WeChart in class for data collection. She doesn't emphasize on saving the files and thus it's just an one-day experience. Actually she prefers to have data in notebook rather than in the app because she thinks notebook is more permanent and "I have control" such as "go to page 30" (you may see the photos of the notebook in 622 shared drive). In the app data is not organized same one and everybody has to label it. But she realized that "it should be as easy" in the app, "but I just feel like..."

WeChart has a resize issue. Rows and columns can not be added once they are in the bigger mode. Also she can not relabel the rows and columns.

WeKWL

It was named as Project Board and it is in a textbook they use.

Drawback: there's no title on the top of a project.

WeSketch

WeSketch is particularly useful for science because people are always drawing things in science and 7th and 8th graders really like drawing. She showed us an animation a student made using WeSketch. We could see what is taught about cell division in the animation. She admits that it takes a long time to make really good sketches, but anyway the app helps (you may copy the same background for animation) and it's better than pen-and-paper because it's animated.

WeMap

In class she uses WeMap only. create nodes and arrange

WeCollabify

One issue: the long file list, maybe put the date on the list.

has to set up teacher's portal with all the names and emails in the class, maybe allow the users to import the list.

Evaluation

WeMap is usable, interesting and collaborative; WeSketch is cool, functional and more creative and it can be animated, which is important. But still a lot needs to be done with WeSketch. She doesn't like Project Board and she thinks people don't like it. "It's just in the textbook".

Effectiveness

She thinks it is effective and students like the apps. She feels students are more engaged when using them. "Teacher just try ways to get students engaged", she says. Also she believes she needs to "educate students for the future" and this is one reason she welcomes the app.

Potential

She thinks the potential of WeCollabify is great. "My dream is to bundle WeCollabify with the textbooks" because "if it is in the textbook, it will have more potential."

Why Science

She thinks it's good to bundle science classes in the app because the content is different every day, not like Maths. Also she thinks apps are dependable.

Why the Only Teacher

Actually she doesn't really want other teachers to use them because students won't think it's cool. She herself doesn't want to use the apps every day because the students will get bored. One barrier may be the teaching style. Concept map is not the style for other classes.

Working sheets is intuitive. And Project Board is used only because it's in the textbook.

Phone:

"It's tiny but if you're used to it, why not?"

But anyway iPad has a bigger space to work.

First-time Use

She doesn't have any problem the first time she uses the apps. When students use them for the first time, she gives them 10 minutes to explore freely before coming down to the course contents.

User E: David:

3. 6 computers, 6 tablets = family of 5, 2 tablets for David.

- not everyone has the same model, apps look the same

4. tablet used in all classes, most often in math science

5. Used in assignments

- we sketch model of the heart, presented to Sr. Rebecca

Group assignments in class

Single assignments @ home

WeKWL

- difficult to yell out ideas for one note writer

- we can share ideas

WeMap

- share ideas (otherwise the class will be noisy)

Problems:

- can get hectic

- nodes moves suddenly

- difficult to access links between nodes

WeSketch

WeChart

- problem with simultaneous posting fixed

Why do we learn better?

Teacher can give a direction and students can do everything on their own

Teacher can check one what they are doing

Other apps:

Testing apps

Duolingo ... Spanish
Google
Chrome
Drive: English and History
Flash fox:
Games(of course)

Google Drive : individual assignments

User F: Hunter

Computers: 2 tablets: 2
An hour non-class, 15-30 min in class.

WeSketch:
Ind. assignments
Can visualize information
Diff from paper: we sketch actually moves drawing

WeMap:
- easy to visualize information

WeKWL aka project board
- organize information

We Sketch:
- can write it down
Useful for learning

Freezing --
Not knowing how to do something: changing colors.

Confusing:
We Chart:
Two fingers vs one

Likes all apps

Other apps:
Duo lingo: after class or in class

Almost all apps are used in class
Started this year
Easier than writing it all down