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J O U R N A L



A Culture *of* Collaboration

IN THIS ISSUE

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2015 MACUL Conference Info

Google Groups: A Tool to Civilly Discuss Controversial Issues

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WeCollabrify: FREE Collabrified Apps That Support Synchronous Collaboration

By Cathie Norris, Elliot Soloway
Jennifer Auten, Ronda Duran, Kimberly Lee, Sr. Rebecca Mierendorf, Cheryl Zuzo



ABSTRACT:

K-12 educators are being called on to support students in developing collaboration skills. In this article we describe the WeCollablify suite of free, collabified apps and how they can and are being used in K-12 classrooms to support students developing into collaborative learners.

INTRODUCTION: SUPPORT FOR SYNCHRONOUS COLLABORATION

“Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others’ ideas and expressing their own clearly and persuasively.” Common Core State Standards (CCSS) – [College and Career Readiness Anchor Standards for Speaking and Listening](#)

The above is not just one of the standards... it is one of the ANCHOR standards. It is core to the core! It underpins all the other standards!

To address the need to support teachers in helping their students develop collaboration skills, we have created a suite of “collabified” productivity apps – available at no cost – that can be used across grades and across subject areas. By “collabified” we mean that the app supports two or more students, working together, simultaneously co-creating, while each student is on his or her own computing device (e.g., an iPad). And, students need not necessarily be co-located: rather than sitting face-to-face around a black, sink-based science table, each student in the collaboration group could be sitting at his or her kitchen table – all the while verbally talking to each other through their computing device (e.g., an iPad) using VoIP (Voice over IP).

- WeWrite+¹ - This app supports students in co-authoring text-based documents. While the Google Docs Editor, the Grand Daddy of collabified text editors is geared to the secondary grades, WeWrite+ is being consciously designed for grades 1-6.
- WeMap – This app supports students co-creating concept maps.
- WeKWL – This app supports students co-developing KWL charts.
- WeSketch+ - This app supports students co-authoring drawings and animations.

All these apps work on iOS and Android devices; indeed, each app interoperates, e.g., three students could be in a collaborative session using WeWrite+, with two students on iPads and one student on an Android tablet².

So far, these tools have been used in 1st, 2nd, 7th and 8th grades – in science, social studies, language arts, and math. The second half of this article was written by teachers from those grades, and provides concrete examples of how the WeCollablify tool suite has been used in Michigan and California classrooms!

- 1 We are renaming all the apps in the WeCollablify suite; in Feb 2015 look for: Co-Write, Co-Map, Co-KWL, Co-Sketch.
- 2 We are rewriting the WeCollablify apps in HTML5. By April 2015 all the apps will be able to run on **any** device: Chromebooks, iPads, Android tablets, MacBooks, Windows Phone 8 devices, Windows laptops!

Let’s now talk about some the key components of collaboration:

1. SYNCHRONOUS COLLABORATION VS ASYNCHRONOUS COLLABORATION

Web 2.0 was all about supporting ASYNCHRONOUS collaboration, where an individual posted a comment (e.g., in SMS, in Facebook, in Flickr) and another person responded with a posted comment. In Social 3.0, the next turn of the technology crank, there will be support for SYNCHRONOUS collaboration: two or more individuals working together, co-authoring an artifact, in real-time.

In our everyday “analog” world, we are quite accustomed to working synchronously with others; two heads are better than one in solving a problem! Finally, in the digital world, the technology

is strong enough – networks are robust and devices are ubiquitous – to enable us to work together *synchronously*, to feed off each other’s ideas, and invent something that is the product of our joint effort.

In Section 2, classroom teachers tell stories of how their children work synchronously co-authoring/co-creating using the WeCollablify apps.

2. COLLABORATION IS NOT EQUAL TO COOPERATION!

In the vernacular, we often use the terms collaboration and cooperation interchangeably. But, in education, we need to be more careful.

- Collaboration: working together to develop a shared understanding
- Cooperation: working together, helping each other, to do a task

Collaboration has a cognitive goal; cooperation is about working to accomplish a task. At the end of a collaborative activity, when all the parties walk away, each individual walks away with the same, shared, common understanding. In contrast, after a cooperative activity, the task is completed, but there is not necessarily a cognitive impact.

3. LEARNING IS IN THE CONVERSATION.

In a collaborative conversation, as the participants work to solve the problem at hand, invariably questions and disagreements arise. It is precisely as collaborators address questions and resolve disagreements that learning takes place. In talking with Sr. Rebecca’s 7th and 8th grade science students, they identified two benefits of collaborative conversations:

- A student’s ideas become clarified during the conversation
- Students gets new ideas from their peers during the conversation

And the artifacts that the students co-create using the WeCollablify apps, play a critical role in those collaborative conversations: the artifacts serve to concretize, to reify, the conversation. In effect, the artifacts are both the drivers of the collaborative conversation and the residue of the conversation.

In a collaborative conversation, as the participants work to solve the problem at hand, invariably questions and disagreements arise.

4. FACE-TO-FACE SYNCHRONOUS COLLABORATION VS NON CO-LOCATED SYNCHRONOUS COLLABORATION

Every learner has had the following experience: working on homework at the kitchen table/in a bedroom, and hitting a big snag: confusion, a misunderstanding. For example, how frustrating is it to watch a Khan Academy video or a flipped-classroom video for the 3rd time and STILL not “get it” – and still not understand?

While WeCollablify apps are great for face-to-face support in the classroom, their real potential is to support synchronous collaboration when the collaborators are not co-located, are not face-to-face. Its 8:30pm, you are sitting at your family’s kitchen table, the test is tomorrow, and you are confused about how the water cycle really works. Using VoIP on the mobile device, call a friend on Google Hangouts, jump into WeMap together, and create a concept map that lays out the water cycle process. Learn together; it works!

With apps like those in WeCollablify, one never has to learn alone again. (Oh, for those using Khan Academy videos, check out YesWeKahn³ on the Android Play Store; watch a Khan video with a friend or two while talking AND while drawing/writing/concept mapping!)

CLASSROOM USE OF THE WECOLLABRIFY APPS

Coming up next you will hear from teachers who have actually been using the WeCollablify apps in their classrooms. Here are some stats, noted by our collaborating teachers:

- 1:1 – Each child in the classroom has his or her own device. Two children on one device might sound like two collaborating children, but in fact, whoever has the device “wins” – whoever has the device controls the conversation, controls the learning. What the teachers have told us is this: with each student having his or her own device, each child has an equal opportunity to have his or her ideas, his or her voice, heard!
- 20-40 minutes per session – The amount of class time per use seems to vary between 20-40 minutes. Though, in Sr. Rebecca Mierendorf’s class, she has been known to give her 7th & 8th grade science students 5 minute assignments on WeMap/WeKWL!
- Used across subjects: The 1st and 2nd grade teachers report using WeMap/WeKWL for science, English, social studies – and even math!
- Used weekly: Also, the teachers report using the tools on a regular basis, e.g., 1-2 times per week, every week.

EXPERIENCES USING THE WECOLLABRIFY APPS IN THE CLASSROOM⁴

While the preceding sections talked more abstractly about collaboration in the classroom, in what follows, the teachers, who have used the WeCollablify apps, describe their experiences and their students’ experiences, with the apps.

CREATING A COLLABORATION SESSION – AND JOINING IN!

By Ms. Ronda Duran, 1st Grade, Workman Elementary, Plymouth-Canton Community Schools, MI
Independence. As teachers, we want all students to become

³ Careful how you spell YesWeKahn: We changed the spelling of our app’s name at the Khan Academy’s request.

⁴ In what follows, all the names of the children are fictitious.

independent. But how do we go about supporting students when we are managing a whole classroom of students? When using WeMap, how can we monitor and assist every child in connecting to their small collaborative group at the same time?

Voila! My colleagues and I have created and use “direction cards” to guide our 1st graders in connecting to their collaborative group. We have found that providing each child with a simple, easy to follow set of directions works well – and helps the children to feel independent!

File Name: Words AY
Teacher Name: Smith
Group Name: Table1
* Dan [red marker]
Cathie [green marker]
Emma [blue marker]
Judy [dark red marker]
Word Family: AY

Figure 1: A Directions Card – Supporting 1st Graders in Creating and Joining a Collaborative Session

In WeMap, one student needs to create a collaboration session, while the other students join that session. The student who will be creating the session will receive a directions card with a star by his/her name and the key information. (See Figure 1) That student will start a new WeMap session (green tab on the start screen of WeMap), enter a filename (e.g., Words AY), enter the teacher’s name (e.g., Smith), and enter the group’s name (e.g., Table1).

The students who are not session creators will also receive a directions card with the key information. These students will select the “Find and Join Group” button (orange tab on WeMap’s start screen), enter the teacher’s name (Smith), and then select their group’s name from a list of existing collaboration sessions (retrieved by WeMap) in order to join into their collaboration group.

I have found it helpful to have short group and file names in order for the children to be able to enter the information easily and correctly. To begin with, I assign the color of the students’ nodes; after the first use of WeMap, I give them the opportunity to select a node color for themselves.

WEKWL: SPARKING CONVERSATION – AND LEARNING

At the end of the school year, I presented my 1st graders with

the task of working collaboratively in a small group to compile a list of everything they knew about 2nd grade. Once they were connected I prompted the students to notice a great big “K” at the top of their iPad screen. This is where I instructed the students to enter the information about what they already knew about 2nd grade. As the students worked I monitored the groups. I noticed that they were talking and writing some things down but, not surprisingly, they had a limited amount of knowledge about what 2nd grade was really like.

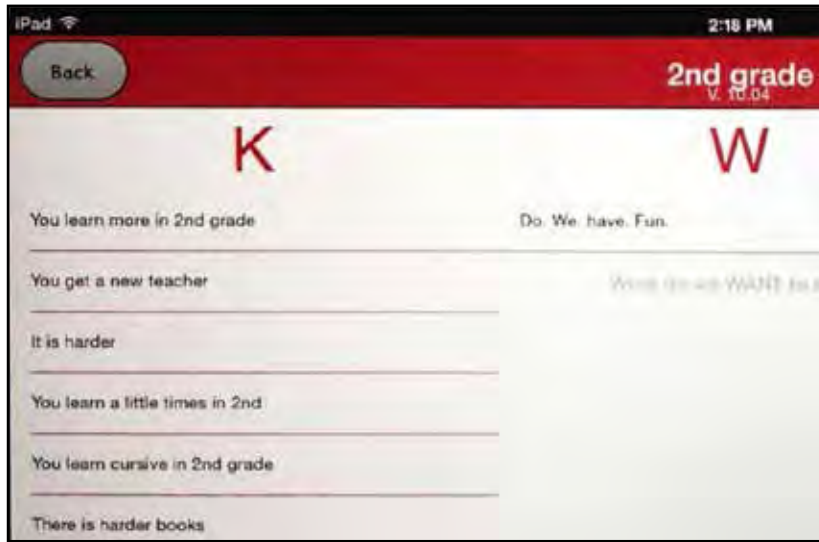


Figure 2: A Collaborative KWL Chart About What 1st Graders Thought About 2nd Grade

At this point, I stopped the children and asked them to scroll the K page to the right. Here they found a big “W” at the top of their screen. I encouraged them to create a list of questions they wanted to know about 2nd grade. Listening to them collaboratively come up with these questions was amazing. I saw that each child had his or her own worries, fears, and wonders. And, they began to build off each other’s thoughts in order to come up with some great questions we could ask actual 2nd graders.

The following day the students took their questions in the W column of WeKWL to an actual 2nd grade classroom and asked the second graders those questions. When we came back to the classroom I asked my students to reopen WeKWL to the file each group produced the day before. The students scrolled right twice to find the big “L” at the top of their screens. I asked the students to work together in order to fill in what they learned about 2nd grade.

To my amazement, the students were entering not only answers to the questions they had entered into the W screen, but they were also discussing what they noticed in the 2nd grade room. They were excitedly teaching each other about the books they saw in the book center, the lack of “games” available for them to play with, how the desks were arranged, and how the words on the word wall were both similar and different from our own word wall. When each group presented the information of what they learned, great conversations were sparked! In turn, the groups entered the new information from these conversations into their WeKWL charts.

In using WeKWL my 1st grade students showed me what it truly means to work together in order to develop a common, shared understanding. They were learning from each other in order to deepen their understanding on a topic. Each and every one of my students was engaged, focused and eager to learn from their peers.

RESOLVING DISAGREEMENT & VALUING COLLABORATION

Ms. Kimberly Lee, 1st Grade, Bentley Elementary, Plymouth-Canton Community Schools, MI

Prior to starting a WeMap session, one group struggled with which member would be able to use the color blue. I guided the discussion with questioning, as teachers so often do, to allow my little people the chance to figure out strategies that could possibly solve this dilemma. “How can you solve this problem?” To my delight they came up with multiple strategies. “I could use blue this time and you could use it next time”, devised David. “Let’s use rock, paper, scissors to decide who gets to use blue.” chimed in

John. The group excitedly decided together that rock, paper, scissors would solve their dilemma. I was so proud of their ability to communicate as critical thinkers and collaborate to come up with a unanimous decision.

At the conclusion of the lesson and review of learning targets, I asked the students for their thoughts on working with the WeMap app. Cathie commented, “I liked seeing what the others were adding.” Sam’s comment summed up the social piece perfectly, “I liked how we worked together!”

As primary school educators our charge is to teach the “Whole Child:” socially, emotionally, physically and intellectually. In my contribution, I focused on the social/emotional aspect of that charge. Ms. Duran and Ms Lee, in their contributions, addressed the intellectual/academic components. All our examples bring in the physical component (fine motor skills). Using the WeCollablify apps is an innovative and technologically creative approach to educating the “Whole Child” in 2014!

WEMAP - FORMATIVE & SUMMATIVE ASSESSMENT

By Ms. Cheryl Zuzo, 1st Grade, Bentley Elementary, Plymouth-Canton Community Schools, MI

As a teacher, I am always looking for ways to identify which students are on track, following directions, and understanding the concepts being taught. WeMap has not only become a way to assess each student’s understanding but holds them accountable within their collaborative group to contribute ideas. The students feel a responsibility to their group to participate. They want to see their colored nodes appear on their peer’s screen. Students at this early age, both boys and girls equally, are eager to contribute to the collaboration process as well as patient to become the group leader. The experience of WeMap takes the sharing of student ideas to a new level of displaying evidence of what they have learned.

WeMap has become a tool to assess each student’s learning both as a summative and formative assessment. Beginning each WeMap activity, students are either assigned or have selected a color for their mind map nodes. As students add ideas to the mind map,

I am able to assess who exactly is participating and contributing to the group's web by their corresponding color. I am looking to see if all the colors are equally represented in each group's mind map. During a recent activity with short vowel word families, (e.g., _at, _et, _an, _ill, and _in) I was able to observe which students were sharing ideas and understanding the concept of building words within a word family. As a summative assessment, I was able to evaluate which students understood how to accurately extend a word family by maintaining the spelling pattern of new words. Many students were able to demonstrate the complexity of using the root word family in words such as Finnigan and pumpkin.

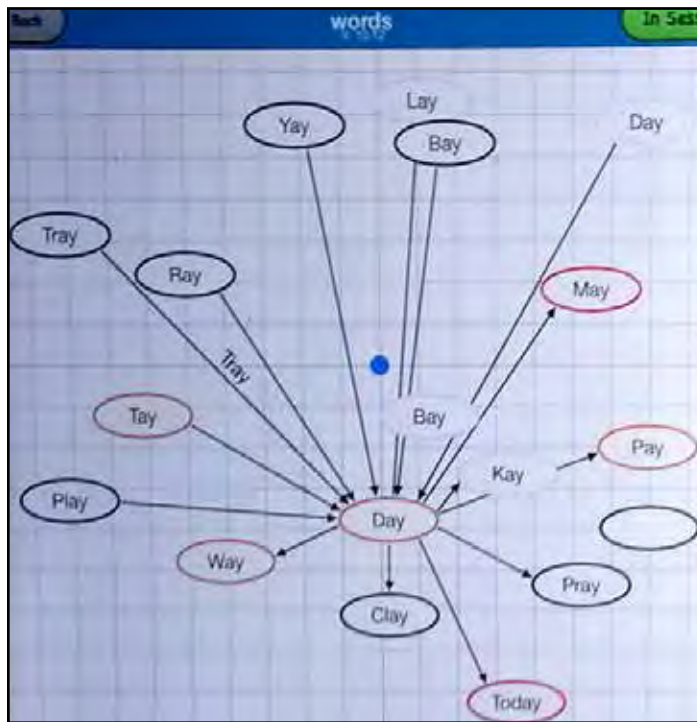


Figure 3: A Collaborative Concept Map of Words Ending in "ay"

The goal of formative assessment is to monitor student learning to provide ongoing feedback that can be used to improve areas of teaching as well as improve student learning. Using WeMap has allowed me to recognize where students are struggling and address the problem immediately. During the word family activity, the mind maps displayed evidence of which groups understood the word family pattern and which individual students or groups of students needed additional support.

The collaborative experience of the WeMap program encourages every student to contribute individual ideas. In my experience of using the program, students are talking in rich, meaningful discussions. Together they are helping one another add words, discussing problem solving strategies to not duplicate words, and deciding if words were real or nonsense. Concluding the lesson, groups presented their mind map on a projector, sending their mind map wirelessly via an Apple TV unit. As their map projected, students took turns counting their colored nodes and sharing their words. The collaborative experience of WeMap gave everyone an opportunity to feel successful!

PUTTING IT ALL TOGETHER - USING WEKWL, WEMAP, WEWRITE+, WESKETCH+ FOR PROJECT-BASED LEARNING

By Ms. Jennifer Auten, 2nd Grade, Montclair Elementary School in Los Altos, CA

I have found the suite of WeCollabify apps to be beneficial to the inquiry, collaboration and discovery process of my second grade students' education. Let me share with you some stories of how we used the four apps in WeCollabify in a unit about the Pilgrims and Wampanoags.

Our week-long unit started with the essential questions "Who were the Pilgrims and Wampanoags?" and "Why were they important to us?" After I posed these questions, each student opened the WeKWL app on their iPad and began typing what they already knew and questions they were curious about. However, this was not a silent, independent event; instead, students sat in close proximity to each other and discussed their thinking. So that the document didn't get too long, four students worked on the same session and therefore had access to the thoughts of three classmates. What I noticed as I listened to conversations was that students didn't write one or two facts and questions and decide they were done. They wrote their initial facts and questions, but then as they read the facts and questions added by their peers, it created an "ah ha" moment that allowed them to recall facts they had "forgotten" and to pose questions that hadn't immediately come to mind. In jigsaw fashion those students then shared their sessions with students from other sessions, thus gaining exposure to the knowledge of an additional four peers. During the unit, students were free to return to the WeKWL chart and add their findings and further wonderings.

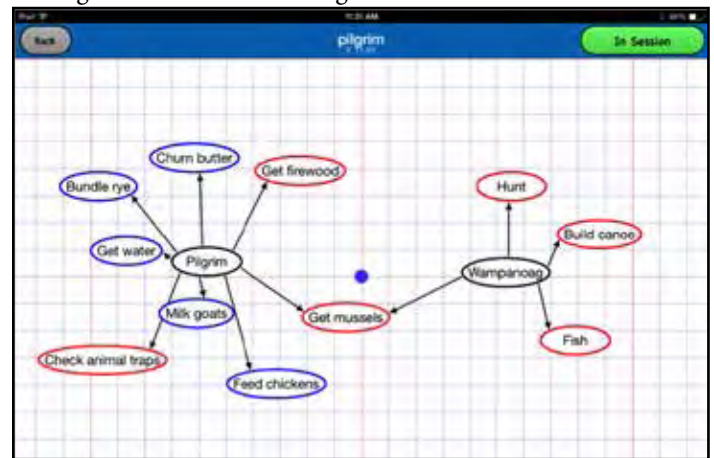


Figure 4: A Collaborative Concept Map Developed by 2nd Graders about the Pilgrims and Wampanoag Indians

Following a research phase, involving books, websites, articles, and videos, groups of four students, again working on four different iPads, collaborated to organize their learning in WeMap. I left this portion very open-ended as far as what to put into the mind map, and the products were quite different. Some groups focused on a single facet of life, such as clothing, and created a map to compare and contrast what was worn by Pilgrims and Wampanoags. Other groups chose either Pilgrims or Wampanoags and used branching nodes to give examples about a variety of topics, such as food, homes, and chores.

Pilgrim

The pilgrims sailed on a ship called the may flower. They came from England. The English wanted to go to a new home. Well there was one problem, there were already people that lived here. They were being called Indians for they're skin color however they were actually not. The pilgrims wanted to teach the pilgrims how to live correctly. The wnglish thought they were wild and sometimes called them wild people. The pilgrims realized that the Indians are friendly when Squanto came and thaught the pilgrims how to fertelize plants. Maybe they were really smart. The pilgrims built a village called Plymouth. Plymouth wasn't to big. The Indians called Plymouth plymex. The pilgrims used guns to hunt. At the end of the fight between pilgrims and Wampanoag tgere was a big harvest everybody celebrated a feast with the Wampanoag. They called this feast thanksgiving. After that they named the country America.

Wampanoag

The wampanoag stored their things outside
The wampanoag thought the pilgrims would start war with them.
The wampanoag called Plymouth, Plymex.
The wampanoag were invited to the good harvest
the pilgrims put together.
The wampanoag helped the pilgrims.

Figure 5: Co-authoring in WeWrite+

After additional research I paired students who had not yet worked together on this unit. As a summative assessment, they created a WeWrite+ document, using their WeKWL and WeMap "notes", to address our initial driving questions. As with the other Collabrify apps, the synchronous functionality of WeWrite+ allowed students to more quickly and efficiently capture their thinking because both students were working simultaneously, rather than one student typing and the other watching. As they wrote their own facts, students could see and respond verbally to what their partner was writing. With equal access at all times, there was no grabbing or fighting or arguing about turns.

Since the names of all participants were on each document, students bought into the concept of creating a shared understanding. Students knew they were being held accountable by me and by the other members of their group to submit a document with accurate and complete information. They were excited to interact with each other and explain their thinking. I overheard conversations in which students debated the validity of a typed fact, and they returned to their resources to fact check and convince each other of what should be included in their product.



Figure 6: A Collaborative Drawing Developed by 2nd Graders

Finally, yet a different pair of students collaborated to create a drawing of the first Thanksgiving as well as an illustration of their own Thanksgivings using a three-box product in the WeSketch+ app. They made the initial picture together and then each created their personal picture, while conversing and remarking on similarities and differences between the three.

As students use the WeCollabrify apps, their ability to collaborate effectively improves. They are learning how to read and listen to what has been said by their peers and to build off that knowledge with their own insights. They are also realizing that their expertise and opinion are important and that all group members need to step up and contribute.

TECHNOLOGY IN SUPPORT OF CONVERSATION

By Sr. Rebecca Mierendorf, 7th/8th Grade Science, St. Francis of Assisi Catholic School, Ann Arbor, MI

We've all seen computer labs full of students wearing oversized headphones, staring at computer screens, totally engrossed in whatever is happening on the screen and completely unaware of the world around them. This scene repeats itself in elevators, on buses, in restaurants, and in grocery store lines where people of all ages are glued to their phones, checking messages or playing games incessantly.

We know that technology is an important part of young people's lives, and, like it or not, it is here to stay. It is a valuable tool in many ways, and as educators, we need to find ways to integrate this tool into our system of education. Technology makes education relevant to students. It is the language they speak and the means they use to communicate.

We cannot fall into the trap, however, of simply replacing paper with a computer screen and pencils with a stylus. If technology is going to be worth the time and expense of implementation, it must be better than paper and pencil.

WeCollabrify provides opportunities for students to work collaboratively with their tablets—both Androids and iPads. They use the tablets to record ideas, but those ideas are generated through conversation. Group members each use their own tablets, but they work simultaneously on the same application. They have grown in their ability to discuss concepts and agree on how to represent them on the app. Early on, students asked if we could put (text) chat boxes in WeMap and WeKWL. That way, they could simply type messages to their peers and bypass the conversation. “Of course not!” we responded. The point is not the technology itself and all the short cuts that come with it. The point is to have focused conversations and build meaning together. If technology can help us meet that goal, then bring it on.

“WeCollabrify provides opportunities for students to work collaboratively with their tablets—both Androids and iPads.”

Critical Thinking, and the Next-Generation Science Standards (NGSS) identifies collaboration as a key practice that scientists and engineers engage in and thus a practice that students then need to also engage in. Yes, integrating collaborative practices into the classroom is a challenge. But, given the importance of collaboration, it is a challenge that needs to be addressed.

This article – and the WeCollabrify suite of collabrified apps - is a first step at providing K-12 educators with support for their efforts at helping the young people in their charge develop into effective, collaborative learners!

OBSERVATIONS ABOUT COLLABORATION AFTER USING THE WECOLLABRIFY APPS

By 7th/8th grade science students at St. Francis of Assisi Catholic School, Ann Arbor, MI

- “Collaboration is a skill that will be used throughout life, both in the workplace and socially. Learning to work together at an early age is instrumental for the development of social skills in later life. Now, with immense integration of technology, it is especially important to learn how to collaborate and communicate when you cannot see a person’s facial expressions or body gestures beyond an emoji.” (Jeanne)
- “Working collaboratively is very beneficial as you get to understand other people’s perspectives. You also get a better reinforcement on the topic you are focusing on. If you are communicating with other people you understand the topic more.” (Cathie)
- “WeCollabrify has made it easier for me to work with my fellow adolescent scientists, by providing easy-to-use apps that help us break down what we are learning. Personally, I prefer visual learning, as I’m more entertained which keeps me focused.” (Sandy)
- “When working collaboratively, I am able to learn and share my ideas or theories with others. I can validate and edit my theories to make them more interesting and factual.” (Sandy)
- “Working collaboratively is very beneficial because everyone can contribute something they know.” (David)
- “It helps us see what other people think about what we are learning. It helps us see other people’s perspectives.” (John)

CONCLUDING REMARKS

Schools don’t want technology. Schools want curriculum! While the WeCollabrify app suite does provide support for synchronous collaboration, what’s needed are instructional strategies for exploiting the apps’ capabilities. To that end, our teachers have graciously written up some of their curriculum ideas and we are posting them on our website: www.intergalacticmlc.org/.

In addition to the CCSS calling “collaboration” an anchor skill, the [Partnership for 21st Century Skills](#) identifies “collaboration” as one of the [four C’s](#) – Collaboration, Creativity, Communication,

Let us know how you are doing, please! Drop us an email; post your curricular ideas on our website. Collaboratively we will make progress!

ACKNOWLEDGEMENTS

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[Note: the underlined words are links to more information and directly accessible via the online or PDF versions of the MACUL Journal at www.macul.org/maculjournal.]

Cathleen Norris, Regents Professor, College of Information, Department of Learning Technologies, University of North Texas. Dallas Public Schools awarded Cathie its Golden Apple Outstanding Educator Award; she taught for 14 years in K-12. She has been President of the International Society for Technology in Education (ISTE) and President of the National Educational Computing Association (NECA). Cathie is also a co-founder of Collabrify.IT, Inc. Email: Norris@unt.edu



Elliot Soloway, Arthur F. Thurnau Professor, Dept of CSE, College of Engineering, School of Education and School of Information, University of Michigan. In 2001, the UMich undergraduates selected him to receive the “Golden Apple Award” as the Outstanding Teacher of the Year. In 2004 and again in 2011, the students of the EECS College of Engineering HKN Honor Society awarded Elliot the “Distinguished Teacher of the Year Award.” Elliot is a co-founder and CEO of Collabrify.IT, Inc. Email: Soloway@umich.edu

