

## **Documentation as an English Language Arts Tool in a Project-Based Learning Environment**

Megan Raether, Northern Lakes Regional Academy,  
raethermegan@gmail.com

*Abstract:* Charter schools often use project-based learning time to teach students how to be accountable for their own educations. To make sure they are reaching goals and making the most out of their learning experiences, Northern Lakes Regional Academy started using a documentation process to teach summarizing and reflecting skills to students of all grade levels. Those who document can keep track of their mistakes, successes, and the steps of the project.

---

A sophomore student delicately hits the keys on the piano as she attempts to create music for the song she wrote in the poetry workshop. The sound of the drill and buzz saw vibrate through the open concept building as a group of freshmen and sophomore boys build a stage for the upcoming student showcase. A senior sits in front of my desk as she works on writing an analytical essay, and every so often she looks up to ask a question. I help a freshman proofread a short story he wrote for the school newsletter. In the room down the hall, a sophomore and senior take pictures of the biology project they started a month ago. A junior jumps from room to room proudly showing off a product she made on the 3D printer she fixed earlier that day.

To many, this might appear as mayhem or play, but underneath it all is a learning structure that helped me thrive when I was a charter school student at Wildlands School, and it's doing the same for many of my students. Project-based learning (PBL) is becoming typical at Northern Lakes Regional Academy (NLRA), a public charter school in the Rice Lake School District, because it helps students truly understand the learning process. Through PBL and project documentation, young adults turn into lifelong learners because they have the skills to gain knowledge independently.

The school day is divided into a seminar, workshops, and project-based learning time:

1. Seminars are similar to traditional teacher-led learning environments. Students don't know how to approach some subjects, such as chemistry, so seminars provide them with skills they might not acquire on their own.

2. Workshops can be led by teachers or students. Sometimes students will request a workshop on a certain subject simply out of interest. Those are my favorite workshops because I love that students are using their voices to tell us what they want. A few of the workshops are mandatory, but we try to keep most of them as electives. Students can opt-out of elective workshops to create more PBL time. While in a workshop, students learn a focused area of a subject. For example, I recently finished a workshop where I taught new students how to answer a timed writing prompt about a non-fiction article. We worked on different strategies such as organization, picking strong quotes, and citing the source. That workshop only met a few times.

3. During PBL time, students explore their interests and create their own projects while earning credit and meeting standards. The contrast between PBL and class projects is best described by Tweed and Seubert (2015), who explain that "The biggest difference between independent PBL and 'just doing projects' in a classroom environment is the goal setting and the personal ownership part of independent projects" (p. 88). Students must be in charge of the demonstrating their knowledge for PBL to work correctly. Projects range from learning how to plant in raised garden beds to writing murder mystery scripts. Freshmen and sophomore students often start with projects that create a foundation for larger and more elaborate projects. Most, if not all, PBL projects are interdisciplinary, so students must use [Project Foundry](#) to search for learning targets in many different subjects when creating a proposal:

6. Learning Targets \*

[Search within a student's learning plan]  
Search Learning Targets

Core Electives	▼ English 9-10	< Select a target
English	Creative Writing Workshop Completion	
GAT	Fiction--Analyze the background material	
General Electives	Fiction---Author's choice of structure	
Math	Fiction---Author's word choice	
Physical Education	Fiction---Central Theme/Idea	
Science		

bigger | smaller

7. Estimated project dates \*

Please estimate a starting and completion date for the project.

Start Date \*  End Date \*  (ex. 1/26/18, Jan 26)

8. Tasks/Activities to complete this project (3 or more) \*

Task
<input type="text"/>
Estimated Time <input type="text"/> Estimated Date <input type="text"/>
(ex. 1h 25m, 1:25)
Who is responsible for completing the task?
All the members of this project ▼

## How students search for and select learning targets on Project Foundry

Freshman and sophomore students will often ask me for help when deciding what targets fit their project, but as they mature, they learn how to pick targets accurately. These project show students that they are capable of learning on their own and inspire them to be lifelong learners. Instructors simply make sure that their students are reaching their goals and to help with blocks occurring during the process.

## Project-Based Learning and Reaching ELA Targets

As an ELA instructor, I'm often asked how I make sure that each student is reaching English targets. Stakeholders want to know how our school incorporates ELA when one student is using Solidworks to create his own fishing lures, while another is learning how to laser engrave wood to make homemade test tube holders. My colleagues and I decided that the best way to keep students accountable and to help them reach English targets through all projects was to teach them how to document the learning process. The learning targets specific to ELA in almost all projects are "I will be able to write over

an extended amount of time to share and reflect on ideas,” and “I will be able to write to reflect on projects, activities, or assessments.”

6. Learning Targets \*

[Search within a student's learning plan]

Search Learning Targets

Core Electives	Writing-Critical Analysis of Literature	< Select a target
<b>English</b>	Writing---Research paper project	
GAT	Writing---Research project	
General Electives	Writing---Research topic to develop defensible thesis	
Math	Writing--Utilize writing process	
Physical Education	Writing---Writing of a narrative	

bigger | smaller

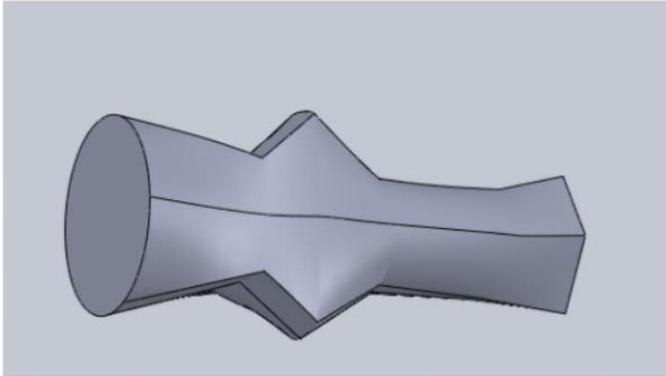
Selected Targets:

- English: English 9-10: Writing---Writing over extended period - IWBAT write over an extended time period to share and reflect on ideas [remove]
- English: English 9-10: Writing---Reflective - IWBAT write to reflect on projects, activities, or assessments. [remove]

### Targets commonly reached through documentation

For example, one student is using Udemy to learn lofting and, in the process, makes entries about the experience in a Google Site. For example, in one entry she explains lofting to the reader and expresses some difficulty with the process. This documentation can be helpful to other students that might want to use it as a guide, or it can help her remember what to do if the same thing happens again. She deserves to earn the reflection target for creating these helpful reminders:

This is another drawing from NLRA's Udeemy class, this just how to loft. Lofting is where you take a 2D image and create a 3D image without extruding it. With this I used guiding curves, which gave me difficulties because at first it would only loft and not include those guided curves in the loft. So that was frustrating. Then I learned I just needed to redraw the guided curves, then it worked for one side. It didn't for the mirrored image. So my solution to that was to redraw the mirrored guide lines and that seemed to work.



Before the current school year started, I made a handout for students to reference independently (Appendix A) that demonstrates the documentation process. Their documentation does not need to match the model, but the main elements should be included. In this way, students can take ownership of using their resources. As they complete more projects, their need for the handout should lessen.

### **Proposing and Documenting Projects**

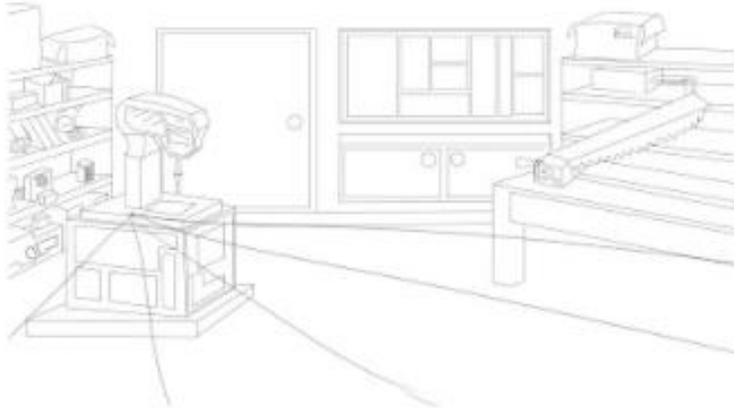
Before students start documenting, they must create a proposal on the Project Foundry website. An instructor reviews the information, including anticipated learning targets, to make sure that it fits the student's learning plan. Once the project is approved, students can use Google Sites, WEVideo, or another approved format to document their project.

The documentation process is divided into three sections: opening, entries, and closing. In the opening section, students provide their name, project title, driving questions, and a description of what they hope to create as the final product. A freshman student

working on an animation project wrote that “My project will include OpenToonz (free software), time, voice actors, and time and practice and time. It relates to my life because I have always wanted to make an animation, this is where I will start.” He continues, “I will create and complete about 3 minute animation.” By writing the proposal, students reflect on what the project will require. This student kept listing “time” because he had gathered enough background knowledge to know that this would consume many of his PBL periods. Sometimes students never reach the final product for various reasons such as time constraint, but that does not necessarily result in zero credit. As long as they prove that they learned throughout the journey, they can hit learning targets. NLRA uses a standards-based grading system so that each learning target can be assessed independently.

The next step is to create entries at least once a week. Nilson (2013) explains the benefit of weekly journaling by stating, “Writing weekly entries in a learning journal helps students develop the good habit of pausing and taking stock of their learning, any affective changes they have experienced, and their self-regulated learning skills” (p. 75). They have the option to voice their entries using a resource such as Audacity or simply by typing. The beginning of the entry starts with the date and an optional title. Successful entries include pictures, videos, or descriptions of what was accomplished since the last entry. Students then discuss what was successful and what needs improvement before moving to the next step of the project. For example, the student working on the animation project created this entry:

## Indoor School Location 1



This sketched location is where the Tablesaw Scene takes place. I am aware, that the scene only has one vanishing point when it should have 2. I might draw another version, just so that everything is accurate. I aimed to make as many references as possible with this background, and am avoiding to use the straight line tool.

 ADD FILES

This shows that he took the time to look at the picture and think about what could be improved. If he doesn't make a vanishing point this time, it can be something he keeps in mind for the future. Knowing that he should have remembered to create more vanishing points can prompt him to do it the second time around to create a more polished product.

Mistakes are never final because we at NLRA encourage prototyping. If students learn that grades are final, they have no incentive to improve. The learning process is more important than the final product because we want to create independent learners. Documenting allows students to critically think about what is happening and spot patterns so that the same errors are not continuous. Tweed and Seubert (2015) argue that "If the student can become his or her own best critic, know how to check for

accuracy and quality, and have an ethic of getting things done right--even if they have to be done over--then we are on the right track” (p. 57). Instructors at NLRA want to help students learn how to push themselves to do better. Teaching students how to become their own critics will help them create better products.

The entries also include how much time is spent on each step. This is important for instructors and other students to see because the effort placed in a project is sometimes hard to understand. For example, the student animator created a storyboard that was only for a short section of the animation project. It would not seem complicated, but after viewing the documentation it can be seen that the student spent a lot of time on it.

Completed the early storyboard for my animation, however, I will likely not make another one. Even though the V2 of the Script exists and will be used, I still am not going to make another Storyboard. Storyboards are time consuming, even if extremely simple. I don't have enough time to create another one, at the time of writing this I have about 2-3 months left to finish my animation. This is the first and only storyboard I will create for my cartoon. Luckily, some scenes in the storyboard will be used in the final animation, because the jokes in some of the scenes are some jokes I really like.

I also took the photos with a camera pointing to a piece of paper, I may draw over it digitally and feature those instead.



Since the time is logged on Project Foundry, and he explained why it was best not to continue with this step, we see that he is making the right decision. It also lets instructors know that even though it isn't something that will be useful, that step is still deserving of time counted towards the project. Just writing about the experience in the documentation will give him learning targets for reflection. He learned how to create characters, write storylines, and other ELA skills. The art skills that he already now grow through this project, so we will check off learning targets while the student is being creative and doing the types of things that he loves.

**Selected Targets:**

- Core Electives: Creative Writing: Short stories - IWBAT utilize a formal writing process to produce an individual or series of short stories around a...[more](#) [\[remove\]](#)
- English: English 9-10: Fiction--Analyze the background material - IWBAT analyze background materials and/or experiences that the author drew...[more](#) [\[remove\]](#)
- English: English 9-10: Creative Writing Workshop Completion - IWBAT effectively complete a creative writing workshop or similar experience. [\[remove\]](#)
- English: English 9-10: Language---Capitilization, Punctuation, and spelling - IWBAT demonstrate command of standard English capitalization, p...[more](#) [\[remove\]](#)
- English: English 9-10: Language---Grammar - IWBAT demonstrate a command of standard English grammar when writing or speaking. [\[remove\]](#)
- English: English 9-10: Speaking/Listening--Digital media use in a presenation - IWBAT strategically utilize digital media to enhance a presentat...[more](#) [\[remove\]](#)
- English: English 9-10: Speaking/Listening--Presentations - IWBAT gather information for a presentation from multiple and diverse sources. [\[remove\]](#)
- English: English 9-10: Writing---Clear and coherent writing - IWBAT produce clear and coherent writing that is appropriate to a given project or a...[more](#) [\[remove\]](#)
- English: English 9-10: Writing---Reflective - IWBAT write to reflect on projects, activities, or assessments. [\[remove\]](#)
- English: English 9-10: Writing--Utilize writing process - IWBAT utilize a writing process including planning, revising, editing, and rewriting of work...[more](#) [\[remove\]](#)
- English: English 9-10: Writing--Writing of a narrative - IWBAT write a narrative to develop a real or imagined event or experience. [\[remove\]](#)
- English: English 9-10: Writing--Writing over extended period - IWBAT write over an extended time period to share and reflect on ideas [\[remove\]](#)
- Core Electives: Multimedia: Animations - IWBAT create animations utilizing animation software [\[remove\]](#)
- Core Electives: Multimedia: Digital File management - IWBAT organize files and materials in order to be able to easily complete projects [\[remove\]](#)
- General Electives: Crafting Design: Paper & Ink - IWBAT demonstrate creative and innovative techniques while manipulating fibers to produce, u...[more](#) [\[remove\]](#)
- Core Electives: Multimedia: Audio Files - IWBAT produce organized audiofiles to be used for podcasting and streaming [\[remove\]](#)

[Post a Comment](#)

This project might not be complete by the end of the school year since many hours go into the steps, but having an incomplete project does not mean that it is a failed project. He will receive credit for what he finishes because he still demonstrated that he knew certain skills. For every 10 hours students spend productively, they will receive .01 credits in the subject area they were working on during those hours. If the student spends 10 hours working on creating characters and writing storylines, he will receive .01 credits in English 9-10. One credit he will receive for this project is, "I will be able to effectively complete a creative writing workshop or similar experience." If the student also spends 30 hours drawing and animating the story, he will receive .03 credits in core electives. Some of the core elective credits include, "I will be able to create animations utilizing animation software," and, "I will be able to organize files and materials in order

to be able to easily complete projects.” To me, this is an impressive project even if the ending is not seen before summer.

### **How Can These Projects Fail?**

Projects fail only when the students neither learned nor enhanced their skills. There are a few ways that we can spot a failing project. One way is to look at the driving questions. If the questions can be answered easily by an internet search, we know that they will not dive deeply into the learning process. This is proof that the plan is not complex enough. To help, I will ask if they can make the project bigger or if there is a way to put their own spin on the final product.

Another way a failing project can be spotted is to look at students’ past projects and their completed learning targets. If they have already proven expertise in the area, they will not learn anything. This can be difficult because students love to return to projects that they enjoyed. Instructors do not want to suppress their passion, but we cannot have them repeat the same lesson without hope for growth. At that point, instructors need to push them to look at the subject from a different angle. Maybe a different area they can explore still fits their passion. For example, a student who loves to write is now in charge of creating a book that highlights art and texts created by peers. This will help her stay in the writing world that she loves but pushes her to do more related to editing, layout, and marketing since she has already proven that she knows the creative writing process. As a junior, she did not need to be pushed to find a different angle; she did it on her own.

Projects also fail if students lose interest shortly after starting, which will be noticeable because they will not put in the effort to correct mistakes or document the project. If they have been reluctantly working on a project for three weeks, I will go into the documentation and look at what has been completed. If the documentation is blank or has only a title page, we will see it as a failure and help the students move toward projects they can love. Students should feel passion when they approach PBL because if they are excited they will learn to associate the learning process with those positive emotions. Those feelings are the first steps to creating lifelong learners.

## **Completing Projects and Entries**

After logging time, students end the entry with an outline of what they would like to accomplish next. The outline reminds them of their goals and allows them to create new goals as the project progresses. They do not need to complete the entire goal-making process alone, for staff often check-in to help mentees create new goals and assess past goals. During mentor meetings, one or two of the goals might relate to independent learning, but they can also be about workshops and seminars. Every so often, I will do an informal goal check-in with my mentees at the end of project-based learning time. I will ask them what they accomplished that day and what should be done next.

When the project is complete and all the entries are finished, students can begin the closing section of the documentation. During the last step, they take a picture of the final product and write a list of used materials. After those simple tasks are finished, they reflect on the process. The handout lists questions such as

1. What challenges did you encounter
2. What skills did you need to finish this project
3. How did your project answer the driving question(s)?

I ask students to find evidence for each question they answer. Asking for evidence ensures that they take their time while reading the entries. This is an attempt to break away from a “learn it and burn it” mindset. Nilson (2013) advised that instructors “Focus on whether your students actually devised and followed a problem-solving process, how they went about defining the problem, what information they did and did not consider relevant, how they determined the quality of the outside sources (in PBL) and how they evaluated and ranked possible solutions” (p. 50). When going through the documentation with a student, adding a question such as “how did you determine the quality of your sources” can help you understand the process students went through while working on the project. It is important to make sure that students understand the learning process and can explain it to others. When they understand the learning process, they can become independent learners. Knowing the material is only the first

step. They need to be encouraged to recognize the learning process and know what steps make a successful learning experience.

Project Foundry is used to evaluate the learning targets that students worked toward. If they successfully showed their knowledge of a target, they receive a five out of five (similar to an A). If they did not reach at least a three (C), they do not receive the learning target. How we evaluate work is the same as other teachers. We are careful about giving learning targets because we want to make sure that students learn each skill. If they check off the target with a two, then they will leave school without truly understanding that skill. Some students will ask fellow students or a staff member to edit their work so that they can receive targets for grammar and other writing skills. If students receive an unsatisfactory score, they can make improvements to earn a higher score. When they are willing to improve and learn, we want to reward that mindset.

While working on PBL projects, I have noticed that my students enjoy taking the lead. If I start to do something for them, they will say something like, “Don’t hijack my project.” They recognize when they are no longer in charge of their own learning and they wish to reclaim ownership. It fills me with joy to see them move into independence. During teacher-led workshops, when I present students with an idea they will start to propose their own questions and ideas. They have learned how to ask questions, which has taught them to look for more meaning. When they reflect on their own learning, I notice that they are honest about the experience. On a reflection about a goal, a student might write something like, “I didn’t reach this goal.” To follow up, I will ask, “Why not?” and often the answer is, “because I was distracted.” This allows me to help make a plan for not getting distracted the next day. The plan might include not sitting next to friends or near a window. If that student had not reflected on that learning, I would not have stepped in. Together, we strengthen their independent learning skills.

Another great thing that has come out of having students reflect on their own learning is that presentations are stronger. They easily walk through the different steps because they can look back at each one before giving the presentation. They can articulate what went well and what needed to be improved because they have already spent the time thinking about those things. When classmates or community members ask questions,

those who reflected on their learning create answers in moments. They know their projects well and are confident when explaining different elements. They were mainly independent throughout the process, and now they can proudly show off their hard work. The reflections turn students into specialists.

ELA plays a key role at NLRA, and I believe that those skills will be strengthened by the documentation of independent projects. ELA doesn't end with these projects, though. We also have daily SSR time. Students read at least six books a year and complete an analytical project about each text. Twice a year students in every grade write a research paper. They regularly write paragraphs or complete handouts about articles they read about a wide range of topics. NLRA also has a newsletter and slam poetry team.

Although this is our first year trying this type of documentation, I can already see the benefits. Through the process of documenting, students acquire summarizing and reflecting skills. With the help of instructors or on their own, they explain connections amongst their entries. Many will present their finished work and documentation during the whole school morning meeting or at a public showcase, which polishes their public speaking skills. Instructors get a realistic sense of the time and dedication students place in their work. Documentation is an excellent tool for any nontraditional instructor looking to add accountability or English skills to their lessons. When students are accountable for their learning and know the learning process, they become independent.

## **References**

Nilson, L. B. (2013). *Creating Self-Regulated Learners: Strategies to Strengthen Students' Self-Awareness and Learning Skills*. Sterling, VA: Stylus.

Tweed, P., & Seubert, L. (2015). *An Improbable School: Transforming How Teachers Teach & Students Learn*. CreateSpace Independent Publishing.

## **Appendix A. Documentation Requirements**

All projects (group or individual) must be documented throughout the duration of the project. Projects that are not properly documented will result in credit reduction or no credit. Documenting projects will help you, classmates, and instructors see your process; the process is often more important than the final product. Documentation should be done at least once a week.

Pick a format for documenting your work. Documentation can be done through WEVideo, a physical photo journal, Google Site, or other approved format. The reflections can be written or voiced.

### **Opening**

The opening needs to include these basic descriptions:

\_\_\_\_\_ Name (your name and the names of any group members)

\_\_\_\_\_ Name of your project

\_\_\_\_\_ Driving question(s)

\_\_\_\_\_ Explain what you hope the final product will be for this project.

### **Entries**

There should be an entry at least once a week during the duration of your project. Each entry is required to have the following items:

\_\_\_\_\_ Date of entry. An optional title can go with the date.

\_\_\_\_\_ Pictures that show what you worked on that day or a video showing the process, if that is not possible then write a few sentences that explain in detail what you completed.

\_\_\_\_\_ Explain what went well and what needs to be improved at this point. Make sure that you explain how that result (good or bad) occurred and what you learned from it.

\_\_\_\_\_ Document how much time you spent working on this phase of the project.

\_\_\_\_\_ Provide a clear outline of what you would like to accomplish next.

## **Closing**

At the end of your documentation entries, you will need to answer the following reflection questions. The answers can be voiced (Audacity), typed, or expressed in a different approved format.

\_\_\_\_\_ A picture or video of the final product.

\_\_\_\_\_ A list of materials used during the project.

\_\_\_\_\_ Look back at the document, what did you learn along the way? What challenges did you encounter? What skills did you need to finish this project?

\_\_\_\_\_ How did your project answer the driving question(s)?

\_\_\_\_\_ List which of the 7 C's (collaboration, creativity, citizenship, commitment, curiosity, critical thinking, communication) were most important to this project (at least two) and briefly explain how those C's were demonstrated.

\_\_\_\_\_ Explain what you would do differently next time and/or explain how this project will grow and be used in future projects.

## Example

This is just a simple example to show you the basic outline of documenting. Your documentation will be more detailed and include more entries. Projects being documented should be on a larger scale than this example project.

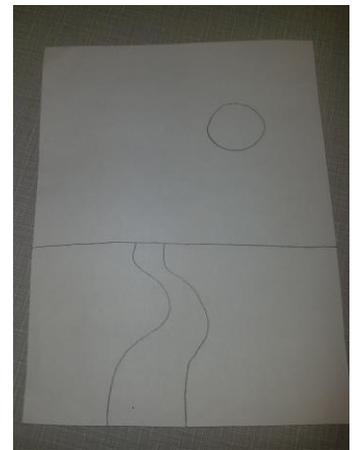
## Opening

Ms. Raether

Project Title: Art Layering

Driving Questions: How can I learn how to include layering in my artwork? How will my artwork improve by the addition of layering?

Final Product: I'm hoping that my final project will be a hand created picture that includes recognizable layering.



## Entries

- August 22nd, 2017 - Pinterest and a pencil

On the first day, I decided to use Pinterest as a tool to look for examples on how to create layering in artwork. I found a post by Art Projects for Kids titled “Van Gogh's Wheat Field” that looked helpful. I clicked on the link and used the example that was provided on the Art Projects for Kids website to draw the basic outline of the picture with a pencil. It was easy for me to find a layering project on Pinterest because there are many art resources on that site. I had some difficulty drawing the horizon because I'm not always the best at drawing a straight line. Next time I will use a ruler to make the line look professional. I spent about five minutes on those two phases of this project. Tomorrow I will work on adding color to the outline of my picture. If I have time, I would also like to add the wheat and crow details to the picture.

- August 23rd, 2017 - Colored pencils or crayons?



Today I added color to my outline. It started by conducting a simple experiment to find out which type of material I should use to color the picture. First, I gathered colored pencils and crayons. I knew that I would have to color brown over yellow in the picture, so I tried it out with both materials. I liked the way that crayon looked best because it blended better. The colored pencils created a sharp look to the colors. Using crayons, I colored in the outlined items in the picture. This step took about 5 minutes to complete. Tomorrow, I will add the brown lines over the yellow to create the appearance of wheat in the distance. I will also draw crows.

- August 24th, 2017 - Wa-lah!



This was my final day working on the picture. To end the project, I used brown crayons to add lines that would look like wheat in the distance. Over the blue crayon I drew wide v's to appear like flying crows. Around the moon, I outlined it thickly with white in an attempt to make it look like the moon was glowing. This step of the process did not go as expected because the extra white around the moon was hardly visible. If I do this project again, I will consider using paint instead of crayons because that would make it easier to

add color on top of other colors. This part took about 5 minutes. Tomorrow I will start the closing section of my documentation.

## Closing

### Final Product



Materials: Paper, colored pencils (for a test), crayons, pencil, and Pinterest

Along the way, I learned that I prefer crayons over colored pencils, but that I should have also tried to use paint. Using paint might have allowed me to layer colors with ease. A minor thing I learned is that when drawing lines I should use a ruler or else they will appear crooked. In order to complete this project, I needed to have patience because art looks sloppy if you don't take your time.

My layer picture project helped me answer the driving questions: How can I learn how to include layering in my artwork and how will my artwork improve by the addition of layering? I learned that Pinterest is a great tool for learning how to complete layering projects. The website offers many step-by-step tutorials. My artwork improved because now I'm able to include layers within my artwork. The layers make the picture a little more realistic and gives the viewer more to look at. Before doing this project, I would have just had the yellow block of color instead of adding the brown lines for more detail.

The two C's that I worked hardest on during this project were creativity and critical thinking. I demonstrated creativity by working on an art technique that I hadn't used before. Creativity was also showcased because I'm not an artist but I pushed myself to try drawing freehand. Critical thinking was demonstrated when I used a simple experiment to decide what type of material I would use to color the picture. I could have randomly picked a coloring material, but instead I tested both out to see which would have the best look for the project.

This project was a great beginning to other art projects. I learned that I enjoy being creative, so I will continue by adding different art techniques to my layering technique. First, I would like to do another layering project with paints to practice this new skill.

## Reference

Barbro, K. (2014, September 28). Van Gogh's Wheat Field. Retrieved August 24, 2017, from <https://artprojectsforkids.org/van-gogh-art-project/>