Project Design through Dialogue

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^{*} All comic illustrations were created by students from the Tootie Frooties who participated in my research. The panels were taken out of context to illustrate aspects of cooperation and group work. To see or purchase the full version of the graphic novel, visit: http://gnp.hightechhigh.org/

CHAPTER 1: PHILOSOPHICAL AND PRACTICAL UNDERPINNINGS

Thirty seconds of conversation in a project-based learning classroom might sound something like this:

- "OK, if we put the same skin color as his face, it's going to look like nothing."
- "Panchita, he doesn't have lips!"
- "He ain't got no lips."
- "Then what are we going to put for the color?!"
- "Nothing."
- "Can we just put really really light pink so you can see them, but you can't see them?"
- "Just put a peachy color."



The final design of "Rocco Valentino" (pictured above) reflects many decisions made collaboratively in group dialogues.

- "That's what I said. Like a peachy color. A peeeachy color."
- "Let me see the book."
- "Let's give him a navy blue shirt."
- "Why not aquamarine?"
- "Oh, let's make it green."
- "No, not green. I hate green."
- "I hate you."
- "Dude, I had to wear green for my school for the past three years."
- "I didn't."
- "Red, red, red, red, red."
- "I hate green. I really like, I would kill green."
- "Do you like the Green Lantern?"
- "No!"

Outside observers might find this conversation chaotic. While I would agree, I also see much more. Here, they talk about a common problem: choosing colors for their comic book character. They bargain and negotiate. They reflect on past

experiences. They make demands of one another, and concessions. They get distracted, but they plow forward anyway.

When students are given freedoms to make autonomous choices in the classroom, their conversations become uncontrollable -the only way real conversation can be. Voice can be an incredible asset in the classroom, but it can also pose a real threat to the learning environment, when perspectives differ and ideas come into conflict. Just speaking is not enough; we must also learn to listen, so that we can feel heard.

My action research project focuses on the often hard-to-understand ways in which students interact with one another during loosely structured "project time." My project aims to present a deep analysis of the question: how do we experience working together during a project?

Many of my sub-questions for this topic revolve around dialogues in the classroom. How do students talk to one another? How do they accomplish a cooperative task? What roles do students take in project work? How does personality affect how students experience group work? While I could have taken many different approaches to this topic, I focus on communication as one way to narrow the topic of what it means to "work together."

I began this project with several goals in mind. Primarily, I wanted to more deeply understand the student experience of working together during projects. I had hoped that I would also see:

1) Dialogues evolve

This project sought to document student dialogues as they develop within the classroom. I hoped to track movement in the students' conversations themselves.

2) Students evolve as cooperative learners

This project looked to assess student growth in cooperative learning. This involved developing an understanding of the habits of dialogue, such as voice, speaking, listening and respect (Williams). I also hoped that they would experience more control over how and when they interact with others in groups.

3) Student participation and ownership increase

Finally, I hoped that students would perceive that they had more ownership in their group projects because of their participation in group decision-making. Project-based learning can be an effective design for a classroom, but PBL teachers are constantly challenged to get every student involved in their own learning. This study sought to identify how to use dialogue as a way of increasing individual participation in a group project.

Understandings

How do we experience working together during a project?

My understandings section first situates this research question in the body of literature associated with project-based learning. Next, it moves to cooperative learning and what it means to work and talk together. Finally, it looks to understand the differences in conversational and conflict styles for each student.

Cultures of Project-Based Learning

My question is rooted in the relatively short history of project-based learning (PBL). The word "project" for many people connotes work that is in addition to the real curriculum. In his book, An Ethic of Excellence, Ron Berger suggests that the model for a typical project is the science fair project and the book project. Both of these are introduced to a classroom with the instructions: "Your project is due in a month. Good luck." The outcome of such a loosely mandated assignment is a great diversity of quality in the final product. Some students flourish with the lack of direction, while others fall hopelessly behind. This type of project is not the focus of this research. Instead, I am referring to projects that are aligned with the pedagogy of project-based learning.

Project-based learning is a comprehensive instructional approach to engage students in sustained, cooperative investigation (Bransford and Stein, 1993), typically characterized by in-depth thematic study that incorporates basic skills, higher order

thinking, and a product of excellence which is presented to a public audience. Berger goes on to elaborate on this kind of project by clarifying that it involves assessment rubrics, checklists, timelines, due dates and clear standards which make it difficult for any student to fall behind.

Projects offer several unique benefits (Houghton-Mifflin, 1998). First, projects approach teaching with a real-world problem, and often incorporate multiple content areas to situate learning within a realistic context. Second, projects allow students to use their knowledge in a variety of different ways. Third, projects typically involve collaboration amongst students, teachers, and community members. Finally, projects often encourage the use of multiple technologies, which help students become more accustomed to computers and other tools (Blumenfeld et al., 1991).

Despite its many potentials, several issues relating to PBL have arisen (Houghton-Mifflin, 1998). First, there is a lack of attention to how to support both teachers and students in this innovative educational approach. Blumenfeld et. al. suggest that projects may have been dissemated without enough consideration for how complicated it can be to motivate students in difficult work that requires deep reflection. Second, PBL often neglects to take into account that students engage in the projects as novices. Finally, PBL does not pay sufficient attention to the development of the classroom environment. Teachers embark into PBL without the experitise required to organize a cooperative culture in their classroom.

My study attempts to address these issues, particularly the question of how to develop a culture where students can work autonomously and effectively in groups. Slavin writes,

A related need for research concerns effective uses of project-based learning. Most research on cooperative learning has involved the use of these methods to help children master fairly well-defined skills or information... However, there is a great deal of work yet to be done to identify effective, replicable methods, to understand the conditions necessary for success in project-based learning, and to develop a more powerful theory and rationale to support project-based learning (Slavin, 1996).

Slavin explains that there is still a need for research that presents clear structures to PBL teachers. This project utilized different structures that may speak to this need. I investigated the way both students and teachers experience working together, as a way of understanding possible clues for how learning occurs during a project.

Working Together, Talking Together

Talk is at the heart of human existence. It is pervasive and central to human history, in every setting of human affairs, at all levels of society, in virtually every social context (Zimmerman and Boden, 3).

Cooperative Learning

Our current understandings of cooperative learning trace back to two educational theories: Piaget's notion of cognitive conflict (1963) and Vygotsky's idea of the social nature of learning itself (1978).

Piaget introduced the idea that when students work together, they test their own perspectives against the perspectives of the other. This conflict results in an individual awareness, and a subsequent negotiation with differing perspectives, from which emerges new perspectives and understandings.

Vygotsky suggests that most learning takes place on the social, interpsychological plane, rather than on the intrapsychological plane. Therefore, the ideal state of learning occurs within the zone of proximal development (ZPD). This zone refers to the area between a learner's actual state of development, and the learning s/he can achieve through interactions with his or her peer group. From these two theorists, dozens of others ideas emerge and we call this cooperative learning.

Educators support the use of cooperative learning as a means to effective education for multiple reasons. The motivational perspective largely focuses on reward structures under which many students operate. Group work can be structured so that no group can be successful unless all students in the group succeed. This encourages students to work together to accomplish the goal, offering encouragement when their group members succeed, and expressing disapproval when their group members do not succeeds. Similarly, the social cohension perspective suggests that cooperation encourages learning because group members care about one another, and want to see one another succeed (Slavin, 2). While these two perspectives differ significantly, truth likely resides partially in both.

In addition to the motivational theories, cooperation also enhances what students learn because of the concept of cognitive elaboration. "Research in cognitive psychology has long held that if information is to be retained in memory and related to information already in memory, the learner must engage in some sort of cognitive restructuring, or elaboration, of the material" (Slavin, 6). When students work together, they often find themselves immersed in conversations where they utilize their new information, and help to explain it to others in their group who may struggle to understand. The explanations help both the student who struggles, and the student who explains.

Whatever the reason for its efficacy, cooperative learning helps students achieve group goals, and develop understanding. Robert E. Slavin from John Hopkins University performed a review of 99 studies of cooperative learning in elementary and secondary schools which demonstrated high rates of achievement gains. He reports, "Of sixty-four studies of cooperative learning methods that provided group rewards based on the sum of group members' individual learning, fifty (78%) found significantly positive effects on achievement, and none found negative effects" (Slavin, 3). The theories of cooperative learning enhance our understanding of project-based learning, and the importance of asking students to work together to achieve a common goal.

Dialogue as Doing

Dialogue...is about a shared inquiry, a way of thinking and reflecting together. It is not something you do to another person. It is something you do with people. (Isaacs, 9.)

One of the purposes of this study was to facilitate the evolution of dialogue in collaborative projects. When I talk about moving through the fields of conversation, I refer to the descriptions provided by Isaacs in Chapter 11, "Fields of Conversation." He postulates that dialogues can operate in four possible fields, as illustrated in the adjacent image. These categories provide a useful starting point for conversational analysis in the classroom.

The first field he names "Politeness." This field is characterized by shared monologues, and robotically acting according to group norms. People do not feel completely safe to express what they really think or feel. Students often occupy this space at the beginning of the year or when they first begin a group project. At first, they fear to say anything at all in front of their peers for fear of judgment.

The second field is the "Breakdown" where politeness starts to take a back seat to discussion and debate. People begin to share perspectives, although not necessarily their own. In this space, there is "side-taking," and advocacy, but it is more general and not personal. As applied to the classroom, in this space, students may begin to argue with one another, and "choose sides." The conversation shifts to focus less on politeness, and more with who wins and loses the debate.

Next, the dialogue can move into the third field, "Inquiry" where reflective dialogue emerges. This field is characterized by curiosity, as people seek not just to share their point of view, but also how they arrived there and the meaning it has for them. This field quite often occurs quickly, and then students have the opportunity to move into the final field of conversation, which is called the "Flow." In this final field, generative dialogue becomes possible. People become open to deeply meaningful dialogue, uncharted territory, and begin to create together something that belongs to the group and not to the self. In this field as Isaacs describes it, dialogue takes on an almost spiritual dimension. It feels like a magical place where authentic involvement

Self-Reflective IV. III. Flow Inquiry Generative Reflective Primacy Primacy of the of the Whole parts II. I. Breakdown **Politeness** Controlled (Shared) discussion or Blaming and

Nonreflective

with the "new" becomes possible.

Real dialogue involves multiple stages of development, whereas typical conversations in the classroom often revolve around teacher-generated directives. Dewey has an oft-quoted aphorism which says, "There is all the difference in the world between having something to say, and having to say something." In his book Why We Do What We Do, Edward L. Deci discusses

the importance of personal causation, as it leads to authentic conversation. Quoting psychological theoretician, Richard deCharms, he writes, "[deCharms] believed that the key to intrinsic motivation is the desire to be the 'origin' of one's own action rather than a 'pawn' manipulated by external forces" (Deci, 27). Creating a culture where real dialogues occur can put students at the center of their own learning, and as the primary designer of their own work.

Freire also talks about dialogue as something that is, in fact, "creation" in his seminal text, Pedagogy of the Oppressed. At the heart of dialogue, Freire argues, is the word itself. All authentic words lead to transformation. He writes, "Within the word we find two dimensions, reflection and action, in such radical interaction that if one is sacrificed – even in part – the other immediately suffers. There is no true word that is not at the same time a praxis" (Freire, 87). Freire's philosophies greatly inspire this project, and the point of entry in particular in researching the students' personal narratives regarding their working together in projects.

Talk about Talk

This project seeks to not only understand the ways students talk to one another, but also the way students experience group work as discovered through the careful analysis of their personal narratives.

The framework for this project comes largely from the philosophies espoused by Freire in Chapter 3 of The Pedagogy of the Oppressed. In this chapter, Freire proposes that we must include the students themselves as co-investigators in the research. He writes:

It is not our role to speak to the people about our own view of the world, nor to attempt to impose that view on them, but rather to dialogue with the people about their view and ours. We must realize that their view of the world, manifested variously in their action, reflects their situation in the world (Freire, 96). In asking the students to report on their cooperation in their groups, they primarily share their own situation of the world. Albeit, their experiences within the project are merely one slice of their holistic situation in the world, but if we carefully investigate a small section, we may begin to learn more about the whole.

This method of data collection also served as an intervention. When I ask the students to report on their cooperation, and to pay careful mind to it, I simultaneously ask them to redirect their attention onto something that is of utmost important for their project work. In Democracy and Education, Dewey discusses the the way that adults participate in shaping the environment and establishing the customs for the young. He admonishes educators to remember, however, that "all direction is but re-direction; it shifts the activities already going on into another channel. Unless one is cognizant of the energies which are already in operation, one's attempts at direction will surely go amiss" (Dewey, 31).

My role in this project was to design the environment and boundaries in which the students interact, and then ask the students to reflect on the experience. In essence, this talk plays a vital, transforming action for the students. Freire continues this thought when he writes, "Reflection upon situationality is reflection about the very condition of existence: critical thinking by means of which people discover each other to be 'in a situation.' Only as this situation ceases to present itself as a dense, enveloping reality or a tormenting blind alley, and they can come to perceive it as an objective-problematic situation... Humankind emerge from their submersion and acquire the ability to intervene in reality as it is unveiled" (Freire, 109). Freire's concept of conscientização is best understood as the deepening of the attitude of awareness -extending to the "vocation" of "man": to transform the world according to his own purposes.

The power of the word itself lies at the heart of this research project. Freire calls it "an act of creation" (Freire, 88) and Dewey refers to all communication as "art" (Dewey, 6). By asking the students to participate as co-investigators, I put them and their experience at the forefront of what required examination.

Dialogue as a Democratic Value

The development of dialogue in the classroom is also another way to bring democratic values into the classroom, and renew the meaning of citizenship for

students. Meier discusses the need for true democratic practices in schools in "Educating for What? The Struggle for Democracy in Education." She writes:

And even within our schoolhouse we do not have the time to gather and discuss our profession and our school's collective decisions together. Time to talk and think is a critical factor. If you want to know if a school is a democracy, look at who has the time to think about the school as a whole, and who has the time for discussing it? Is there time to talk with the students, the teacher across the hall, all the teachers, the parents of students, and even those citizens, upon whose money and vote the school relies? My litmus test always considers the effect of the school and its organization has on its various constituents; and their sense of power and respect. Do all constituents think they have an impact? The whole life of a school sends vital messages about power and status and its connection to decision-making. (Meier, 2009)

The ways we talk to one another, and the time we make for this conversation, tell students a great deal about what we value.

We can also value students themselves to participate in these conversations. In pursuit of the elusive answers to complicated questions, I relied on the students to recount their own experience. I asked that they comment on where learning happened, and how. What I found does not provide an easy answer, but rather, a complicated story. It is the voices of the students and their experiences that I hope to share.

Setting

I conducted my research in one untracked 9th grade classroom at a public charter school in Chula Vista, California called High Tech High Chula Vista (HTHCV). This high school opened in Fall 2007 as a part of High Tech High, a larger organization that includes five high schools and three middle schools and one elementary school located in three corners of San Diego County.

High Tech High Chula Vista, like the other High Tech High schools, is based on four fundamental values: personalization, common intellectual mission, adult-world connection and teacher as designer. Personalization is provided to students in several different contexts. The maximum class size at HTHCV is typically 28. Additionally, students take 2-hour block "core classes" which combine Math with Science, and Social Sciences with English. Students are assigned to a two-person interdisciplinary

team, and the team shares the same 48-56 students each school year. Students additionally have one faculty advisor who serves as their advisor for the duration of their educational journey.

Our common intellectual mission is based on the essential belief that our high school is college preparatory for all students. Students are not tracked according to ability, but all are working on the same projects and classroom assignments. Projectbased learning gives students the flexibility to access the same material on a variety of different levels, which makes it uniquely able to address differentiated needs in the same classroom. For example, students may work as a team to put on a play. This singular event involves many steps and skills. Students read plays, write scenes, coach actors, build and design plots, and market the event to the public. Some tasks may be required for each student, but students are given more choice to play to their strengths as individuals. The project-infused curriculum helps make education accessible for many kinds of learners. Third, adult-world connection attempts to blur the lines between the "school world" and the "real world." Projects reflect professional work settings, and teachers make every effort to provide outside audiences for class work, as well as host quest speakers to make the learning and work as authentic as possible.

Finally, teachers are celebrated at HTH schools as the primary designer of the curriculum and projects at the school. The respect and flexibility afforded to teachers at HTH enables us to respond critically and cooperatively with our students, refining plans and lessons immediately in order to benefit our students. While this can be a challenge, the structure of the school also requires us to cooperate with other teachers regularly, which provides much needed support and accountability. We also have the freedom to cooperate across grades, across disciplines, and with community partners as the opportunity arises.

Additionally, the curriculum and advisory program at HTHCV is laced with the values embodied by the seven Habits of the Heart and Mind, developed and adopted by the HTHCV staff in 2008. These are mindfulness, cooperation, perspective, evidence, refinement, compassion, and perseverance. These habits help students create connections between various projects that they encounter throughout their years at HTHCV by acting as a common thread. These words come up in endless contexts. For

example, perspective might be utilized when writing a research paper and trying to look at things from a historical point of view, while could also be used in a three-view drawing used to design a light box. Mindfulness may be utilized when crafting a descriptive essay of a nature setting, and may also be used while operating power tools. This language with their various significances help students connect their learning across the curriculum and grade-levels.

HTHCV currently serves approximately 600 students. Enrollment to HTHCV is based on a lottery system that seeks to admit students according to zip code, which helps to ensure that our student body is representative of the greater South Bay area. HTHCV is fairly representative of the student population in Sweetwater District, from which the majority of our students apply. This is illustrated in the following table:

	Total Enrolled	% Asian	% Black	% White	% Filipino	% Hispanic	% Other	% FRL	% Special Ed	% ELL
HTHCV	609	3	7	12	9	68	2	24	8	6
Sweetwater	39,668	2	4	10	9	73	2	43		26
СА	1,839,000	8	7	28	3	49	5	51		24

Although our population is a mere microcosm, our demographics roughly mirror the population within Sweetwater Union High School District. Currently, we serve 24% FRL compared to 43%. Our African-American population is significantly higher, at 7% compared to 4%. We have slightly fewer Hispanic students. As the school has grown, these numbers have become more representative of the greater district.

There are no special classes for either Special Education or English Language Learners (ELL), and every classroom has full-inclusion. We attempt to make accommodations for students with Individual Education Plans (IEP) while offering fullyinclusive courses for all students. This usually entails differentiated assignments based on individual needs, with additional support for the students with the help of our academic coaches. In the 9th grade, generally each team of teachers is assigned one academic coach who works alongside the students to assist them with organization or directions. This helps our students with special needs get adequate support while remaining within the classroom.

Methods

Let us think the unthinkable, let us do the undoable, let us prepare to grapple with the ineffable itself, and see if we may not eff it after all. ~ Douglas Adams

Data Collection

To capture human experience is an enormously difficult task. Each action or inaction, word or silence, is carefully negotiated through past experiences, preconceived notions, complicated judgments, unique personalities, and diverse cultures. My methods aimed to capture the nuanced perspectives of students as they worked together in group projects.

- 1. Observations and Journaling: I conducted classroom observations throughout the process of each project during the first semester of the 2010-11 school year. I aimed to take note of the conversational successes and challenges that my students faced in the middle of the project. My journaling focused on "crises," which are periods of time when the dialogue is (or is not) moving or transitioning into a new field of conversation. Additionally, much of my journaling reflected my own emotional response to working with the students and my cooperating teacher. These observations help to craft an understanding of the setting, and also really represent my own perspective of what is going on holistically within the classroom.
- 2. Survey: I conducted a Cooperation Survey at the end of the first semester to get a sense of how students perceived their ability to talk and be heard within our classroom environment.
- 3. Reflections: I assigned several reflective writings to get at my students' past experience with groups, working together and the role and purpose of school in their lives. These reflective writings helped me to understand their background coming into a project-based learning environment, and help set the tone for the action research project. I also asked students to complete a more general,

- written reflection of the Comic Book Project (my focus project for this research) when we completed it in February.
- 4. Audio Recording: I asked the students to audio record three of their "cooperative moments" that occurred in their experience during our third project of the year. I also recorded my own cooperative moments, although generally chose to write about them rather than digitally record them. Students used Audacity, an audio recording software on our school computers. The students were able to record these moments independently, which I hope preserved some of the authenticity of their presentation.
- 5. <u>Interviews</u>: I used the audio recording to track "crises" that the students experienced in their groups. A crisis refers to a moment when the dialogue is, or is not, moving through the conversational fields. For example, students experience a breakthrough with their project idea, or experience stagnation. I then followed up with students to learn more about the situation, and to track growth or change for individual students who were facing different kinds of crises. I also interviewed my cooperating colleague, Patrick Yurick (also "Mister Y"), at the end of the project, so I could involve his perspective in my findings as well.

Data Analysis

Bringing the data together was much like assembling pieces of a living puzzle. I sought to align the data I collected, and arrange the various experiences on a spectrum. Students worked with me as co-investigators, as I documented their ideas.

1. Observation and Journaling: I used my own observations and journaling to create a clear setting for the critical moments that arose in the classroom. My own experience with the students provided necessary groundwork for crafting an action-plan that was rooted in the needs of the classroom, rather than based on my own professional agenda. I also cross-analyzed my reflections from working with my colleague with the student reflections to come to a more

- coherent picture of the themes that arose of during group work, both for students and adults.
- 2. Survey: The survey results helped create some categories how students like to learn, resolve conflict, and engage in conversations. These indicators helped me understand the atmosphere of the class as a whole, which provided a necessary counter-balance as much of the data reflects very specific individual experiences.
- 3. Reflections: I analyzed the reflections for clues and trends regarding students past experience with school, learning and working with others.
- 4. Audio Recordings: I transcribed the students' recordings, and analyzed these for "crises" in dialogue. Themes emerged from the recollections, and I followed up with interviewing several students based on their recollections.
- 5. Interviews: I transcribed each interview, and utilized the data to create a more coherent understanding of what students and teachers experienced in their group work. The interviews also contributed to the taxonomy of statements regarding student experience in group work. From these interviews, I looked for themes that emerged for each of us as we worked together in group projects.

Findings

CHAPTER 2: TEACHER-TO-STUDENT COOPERATION

Why isn't teaching working the same way teaching worked last year? Myself, from a planning conversation with a colleague, 11/08/2010

Cooperation is an essential part of any classroom, even if students do not engage with one another on group projects. My experiences throughout this project indicate that cooperation first occurs between teacher and student. Teachers generally associate the phrase "teacher collaboration" with teachers working with teachers. Generally, we do not think of cooperation as something that occurs "down" levels of power. Teachers are traditionally expected to be the answer-holders, and students the answer-gatherers. Our current educational climate does not often consider student and teachers as equal partners in the educational journey.

Angela Creese discusses teacher collaboration differently from the traditional point of view. In her text Teacher Collaboration and Talk in Multicultural Classrooms, she describes teacher/student interaction as primarily dialogic, or sociocultural, borrowing from Vygotsky. She reasons that this involves eliciting relevant knowledge from students, responding to the things that students say, and describing the classroom as a "we," not a teacher/student dichotomy (Creese, 68). In every educational setting, teachers must strive to talk not to, but with their students, considering all of the particulaities that their unique set of students bring to the classroom daily.

My research project instantly became a project about this type of teacher-tostudent collaboration. The project I had originally crafted did not seem to "fit" the group of students that I met when I walked into my classroom in 4th period that August day. My class of students sat at their tables with arms folded and eyes narrowed. One of my students literally sat with his binder held up vertically, so that it formed a barrier between him and the rest of the classroom. The walls that they threw up with their body language revealed to me that this would be a long journey into a relationship that would hopefully one day be cooperative, rather than adversarial.



"We're just throwing spaghetti at the wall to see what works."

Planning for the third project of the year, the focus of this action research project, I explained frankly in a conversation with my Patrick Yurick, my cooperating colleague for the Comic Book Project, "I think I'm at a place where I'm still just baffled by, why isn't teaching working the same way teaching worked last year? And you're baffled too. All of the teachers of this particular class are baffled....And we're just throwing spaghetti at the wall to see what works" (11/8/10).

Patrick's recollection of the group was a little different, but may further illustrate the

energy of this particular group of students. During an interview after the project, he reflected, "They just behave like little kids. The Tootie Frooties are just little kids... they don't know how to control themselves or censor themselves. It's almost like they're schizophrenic as a group. I'll say like, 'hamburger.' And I've done this before. I'll be like, 'You guys are gonna do something crazy no matter what I say. And they're like, 'What do you mean?' And I'll say, 'Hamburger.' And one kid'll be like, 'French fries!' And then they'll be like, 'I could use some French fries,' and it's just like, popcorn [after that]. And I'll be like, 'You just proved my point,' and they're like, 'What's a point? What are you talking about?" ... I always do this every once in a while just to prove to myself that it's not my fault."

I could have written off the class as immature, or just insane, but I knew that neither conclusion would support us moving forward as a community of learners. As I began to sense the adversarial nature of the classroom solidifying, I dug deeper into a genuine understanding of each individual student and their unique histories and perspectives. As I struggled to form a working relationship with my students, it affirmed the conclusion: cooperation happens first between the teacher and the student.

Cooperation through Dialogue

We were like an 8th grade classroom - crazy, wild, and everywhere.

Shaniquawa (in an interview)

One of the themes that emerged from my work with the students was the notion that cooperation occurs alongside relationships. When we attempt to work together without knowing one another, we make judgments and assumptions. As the relationship begins to form, we can call one another by name, and move into genuine understanding. The beginning of my research project focused on my observations of the classroom, and trying to puzzle out little clues that would help me understand how we could move forward together.

I observed that the students focused on one another, their peers. Much later in the year, during our interviews, some of the students provided their own perspective of the classroom. Shaniquawa reflected on how the class and our group projects have changed since September. She said, "I think it's going better now. Before we were still 8th graders. We still kind of are. But it's not as bad as before. Earlier, it was soo bad. It was like, horrible. You worked [the project] up with a partner, but you weren't with your partner. You were with other people... [I was thinking,] I want to be with my friends, like, no, don't take my friends away."

Shaniquawa's perspective describes what I observed as a teacher as well. She concluded that it was because they were just "in that phase," and were acting like 8th graders. As their teacher, I noticed that the class was constantly occupied with chit chat, conversations about the weekend or something unrelated to our project. The room felt noisy and busy with random sounds, yelling, laughing, and meanwhile, their day's work sat unfinished. I felt like I had to yell, or shout, just to be heard above the raucousness. Since they did not prioritize doing their class work, somedays I went home from school feeling as though they learned nothing at all in my class.

This challenged me as an educator, but I had to make a decision about how to proceed. It would have be tempting to write this off as "immaturity," but if this is merely a phase that comes with age, then where do we go? I hoped that we would be able to make progress through understanding, rather than casting judgment. I chose instead to wonder, what is their experience and perception of school? What do they imagine is the role of the teacher? Have they perhaps had particularly negative experiences with teachers in the past? In my efforts to get to know the students, primarily, I engaged with them in reflective exercises that allowed me to get a sense of their instincts related to school, learning, the role of the teacher and their prior experiences with working with their classmates.

In the context of short in-class writing assignments, I asked the students to journal on experience prompts and analyzed their responses looking for clues. The first prompt: Write about a time when you learned something.

The results were interesting, and suggest a number of things about my students. First, only 16% wrote about a time when they learned something on their own, where 84% described a time when they learned something with someone's help. This may suggest that the majority of the students learn interpersonally, perhaps a small insight into their chattiness and noise level. Secondly, only 29% students wrote about a time when they learned something through an institution. It seems that the class overwhelmingly recalled learning opportunities that occurred outside of school, whether about learning how to swim, ride a bike or play an instrument. This suggests that perhaps the students do not ascribe as much value to school learning, as they do to learning that happens on their own or with family.

I wondered about my conclusions, and introduced a second writing prompt to further clarify their perceptions of the role of teachers, adults and one another. The next prompt regarded the power of words in their life (Appendix C). In the first part of exercise, I asked them to generate a list of times someone had said something that had power with them.

Think back over your childhood and now young adult years. Has anyone ever said something to you or something about you that really affected you? Maybe it was something kind or something really mean. Maybe it made you happy, or maybe it made you feel hurt? Make a list of 3 or more situations.

Afterwards, they selected one situation to describe in greater detail. In the analysis, I was again struck more by the absence than the presence of meaningful recollections of teachers in their lives.

For example, Danny wrote about a time when he received a positive message from a coach:

Something some one has told me that has affected me was last year in the football banquet at the end of the seaon... My coach told me that if I kept playing football like I did in eighth grade that I could become a professional football player. After talking to the Saint Augustine football coach I was affected because he said he would like me to be on the team. Ever since he said that, I was excited that a high school coach thought I would be one of the best players and that god me thinking if I keep working on playing football I could get a scholarship to colleges and play football there.

Like some other students, Danny's writing reflected a positive message that he had received from someone in his life. The message regarded his performance in a sport which is very important to him, and also, important to his future. This writing may indicate that the thing that Danny considers most important does not have to do with teachers or schoolwork.

Gaby's reflection was about a negative comment that she received from a classmate in school.

When I started Junior High in the 2nd week for my English class we wrote a summary for a story and then switched papers. A girl ended up getting my paper and the first thing she did was yell out, "OMG this girl has the neatest handwriting, wow what a show off, I bet she thinks she is the best because of her handwriting." I felt horrible. I hated my hand writing for it for the longest time. Her writing indicates that she certainly had powerful experiences from words in school, but in this case, from a negative message sent from a student. Of 23 responses, only 3 wrote about a teacher, and all of those responses referred to a negative message that they had received. The other responses revolved around peers, coaches and parents. Intriguingly, none of the students who wrote about negative messages from their teachers volunteered to participate in my study.

Armed with the beginnings of what felt like understanding, I still wondered: How can I establish a more honest and personal relationship with my students? I decided to attempt to get to know each student, and have them get to know me too. Harkening back to The First Day of School, that venerable text by Harry K. Wong, I stood at the door daily and greeted my students by name. I also began to focus on something seemingly unrelated: the books they read.

This year, we started using Accelerated Reader as a method of allowing students freedom and choice to select the books that they read. Accelerated Reader is a userfriendly, computer-based program that allows students to sign up and select from over

100,000 comprehension quizzes on books. This decision stemmed from years of wondering about how to best create a culture of reading in my class. I have had students reflect on what makes reading meaningful for them, and I found that almost all students find the most meaning in the books that they choose to read. At the same time, I wanted to ensure accountability and be able to monitor their individual growth. Therefore, I opted to utlize Accelerated Reader to help individualize their reading experience in the classroom. After students took the STAR Diagnostic at the beginning of the year, I took this data to them personally in the form of "the book conversation." I sought for opportunities in the classtime to take a student individually into my office and talk about books, and their reading level. Students worked with me to craft individual reading goals, and also identify ways of overcoming reading challenges.

Even though this process had little to do with my research of their group work, I found that it enhanced my ability to cooperate with them as individuals, and thus, as a class. The more time I found to connect with each student, the more I was able to see their individuality, and I believe, the more they were able to see mine. This was the first step in finding ways that we could work together and move forward together as a learning community.

Developing an Atmosphere of Trust

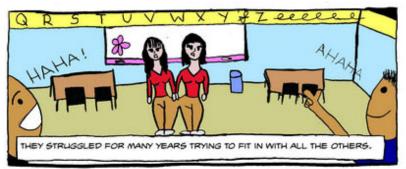
I think that we're like a tight-knit group, despite the fact that most of each other are wanting to stab some of each other, some of us get really annoyed at each other, that's why you hear all this stuff, the jokes and stuff. But I think we wouldn't have it any other way.

- Lolita (in an interview)

As we moved in the direction of cooperation, I sought to work on the "architecture of the invisible." William Isaacs discusses this atmosphere in his text, Dialogue and the Art of Thinking Together. He likens this atmosphere to walking into a cathedral, and the feeling of something immense and powerful. He argues that when we engage with one another in dialogue, there, too, exists invisible fields that create a distinct atmosphere - "a quality that is discernible, thought not always glaringly obvious...The underlying feeling you experience relates to more than just physical arrangement or even the associations you bring to each setting. It is a function of the

quality of energy, experience, and aliveness that each setting gives rise to" (Isaacs, 234).

This atmosphere is difficult to prove, though not terribly difficult to describe or feel. The unique way in which the Tootie Frooties worked and related together baffled all of their teachers. I already alluded to the fact that they tended to focus a lot on the opinions of their peers. In an interview with Lolita, I learned that, especially at the beginning of the year, the students made rude comments to one another, picked on each other, and that this affected what students focused on during class.



Students experienced judgment and ridicule from their classmates. "Unnecessary comments" made it difficult for students to share their ideas.

She reflected, "I was so concerned about like, everything, because I thought how people would react. But it's like, I'm only going to be with you for like, two years, no one cares. Now...that's really changed about me since the beginning of the year. Like, in 8th grade, I had a lot of friends, but I think I was just so concerned about the way I look and everything, and I know I still am, but I think that now I'm just like, I just have a wall now, like, you know what? I don't care [what you say about me]."

As their teacher, I experienced this differently. Because many of the students were so concerned with their image and their status with one another, many times it felt like their first priority was not the daily agenda.

A moment that occurred during our Enjoyment Reading time illustrates this point. On one particular early afternoon in October, I noticed that for the first time in my life, I could feel their particular silence, and it was not golden like they sing about in the song. I wrote.

During Enjoyment Reading, I felt the oddest feeling, as we all sat in silence. It wasn't a silence like peace, but like hiding. Every so often, a student would

glance up to see if I was watching, to that I would smile, as if to say, Yes, I know you are chatting with one another behind your open books. Yes, I know you have all developed an elaborate nonverbal language. Their silence felt sneaky, and I despised the way it felt oppressive, the way I felt oppressive, and the way we feel like adversaries.

I had never experienced a classroom that seemed to have an agenda so far removed from the agenda written on the board.

Secondarily, and without making moral judgments, there were a few key players in the classroom who acted rudely toward others. This element of the classroom made the space feel unsafe for sharing work or ideas. There are dozens of unique examples that could illustrate this, but I selected two to illustrate how quickly students came to judgments of one another while others put themselves on display. On the day we were showing each other how to draw, one student volunteered to show how she drew eyes. As she drew, another student commented offhandedly, "Why does it look like a football?" Quickly other students chimed in, "That is so rude!" "Don't be mean!" She erased her drawing. "I can't draw," she explained self-consciously, when just a moment ago she was eager to show. She sat down in her seat, dejected.

On a different day, the student who had made the football comment volunteered to share his journal about a time when he felt that his rights were taken away. He started reading the first sentence, and it was about a time when he was not allowed to attend a rave that he wanted to go to, a topic he had written about during a previous QuickWrite. Almost as soon as he'd started, one of the students loudly blurted out, "Not this again!" These moments illustrate the unbridled nature of their comments. There is judgment, and it is instantaneous.

Lolita commented on the rudeness of the class by saying, "[It's] just like, little comments here and there that don't need to be said." From her perspective, the nature of the comments was mostly related to body or gender issues. She went on to say that, "It's not like an issue every day, but the thing is that no one has stepped up... Some boys say these things and no other boy has stepped up to say, you know what? That's really not cool of you to say that. They just kind of laugh along." She also commented on what she felt like was a concern that the boys had to be "powerful" and protect their status in the class. She concluded that the reason why no one steps up is because they don't want it to bring them down.

That day of sneaky silences, I concluded my journalling with the question, "How can I research with this class of students, when collectively, their main goal is to oppose me? What can I do to create an atmosphere that is safe?" These questions directed my research towards a deeper understanding. I continued, "Right now, our social contract is not agreeable. Without a doubt, the research starts here. If we are to be a community of inquiry together, it begins with creating conditions for the dialogue to begin. And the key players need to support it. Maybe we start with deconstructing why these roles?" I continued searching for answers.

As we moved into our second project of the year, I assigned students to work in groups of 3 on a value debate. The resolution matched with one of the questions I hoped they would begin to reflect on and answer: Resolved: That individual rights should be restricted for the sake of the general welfare. The students were roughly partnered according to preferences, of who they did and did not want to with. Generally, the students did not indicate anyone that they did not want to work with. This may indicate that the students liked one another well enough, or that they were not engaged enough to feel invested in that decision.

I introduced a structure for the first time that they met with their partners. In order to create a safe space for them to speak and be heard, I asked them to journal first and collect their thoughts. The first prompt for journaling was: What are your strengths as a person/student? What are 1-2 goals for this project? What is one of your triggers? asked these three questions because I thought it was fair that they share not only what upsets them, but also something that they thought was an asset about themselves. For the sharing, I had the students using a relatively structured protocol where they speak and are heard. I asked the students to contribute to the protocol by asking them, "What lets you know you are heard?" or "How would you like to be heard?"

Before they began journaling, we also discussed together the meaning of a "trigger." The working definition for this is something that makes you "go off" (like a bullet) or shut down. During our discussion, some of the triggers they mentioned were people ignoring you, talking behind your back, mean looks, people not taking you seriously, leaving the group to talk to other people, and shutting down the conversation with sarcasm or "whatever." After this, there were a lot more hands in the air.

I analyzed the journals by tagging key lines, or words. I was able to break it down into 6 categories. Figure 1 illustrates the nature of their responses. 23 students responded overall.

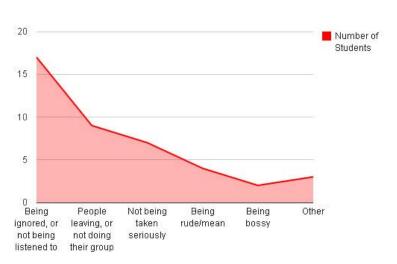


Figure 1 - Triggers

The majority of the class wrote about how they don't like it when they aren't taken seriously, or when they aren't listened to. And I wondered, does it make them shut down, or get mad? I was pretty surprised to find that of 23 responses, 17 had written that one of their triggers was being ignored. Seven students had written specifically that not being taken seriously is a trigger.

I started to think about the class as a collective - here are people who seem not take one another, or their work, seriously. And who, when they speak, often get shut down - like when a student volunteered to draw, or to share his writing. These situations related to their triggers, the very thing that they report causes them to shut down, or get upset. I started to see possible connections. Of course, this data doesn't answer the question completely, about how to solve it, but it suggested that part of the craziness of the class has to do with their triggers and not just with their maturity level. Armed with this information, I wondered, how do we cultivate a new spirit here where people feel comfortable to be serious and to take others seriously, too?

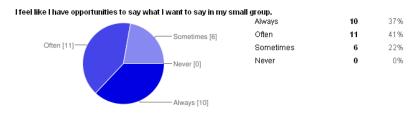
My next action was to introduce different structures that supported equity for all student voices. These ranged from basic turn-taking to the use of a "talking stick" to pass around indicating who needed to speak. We also enforced protocols designed to ensure that all students had the opportunity to speak and contribute to the design of the project. On different days, we encouraged communication through technological mediums, such as asking the students to chat with each other via Google Chat or in their Google Doc.

As we entered into the Comic Book Project, Patrick Yurick and I also worked to develop norms that would support students feeling safe when they talked about items that had great gravity (learning differences or disabilities). On the first day of the project, we introduced the shared norms in my classroom, where they had not previously been in effect. These norms are simply: first, do not speak when others are speaking, because we want to show respect; second, no comments, because comments are judgment; and finally, share seriously so that others can take you seriously. Every day that we engaged in discussions, we would start the class by reviewing these norms. I would ask a student to volunteer to remember aloud one of the rules, as well as the reason why we value it together in our classroom.

At the end of the semester, as students were engaged in deep reflection about their learning during the year so far, I asked the students to participate in a cooperation survey (Appendix F). Encouragingly, I found that the vast majority of the students did feel like they had opportunities to "say what they wanted to say" in their small groups and in the classroom in general. Every single student felt that they had grown in cooperation at least a little bit, and every single student felt that they at least sometimes had an opportunity to say what they wanted to say.

Also from this survey, I found that students overwhelmingly felt comfortable working in small groups. Out of 27 student responses, only one student somewhat disagreed that they felt comfortable working with their classmates. Also worth noting is that 23 out of 27 students agreed that they felt heard when they worked with their classmates in small groups.

Figure 2 - The Cooperation Survey



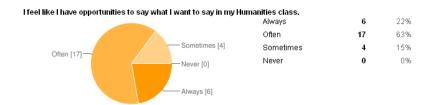
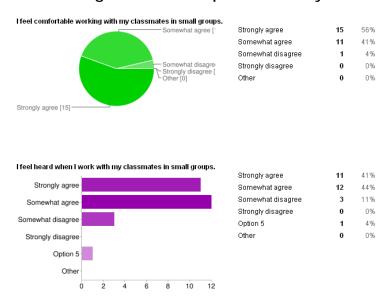


Figure 3 - The Cooperation Survey



Even as I continued to move through the semester with this class of students, there were many days where students would speak and be shut down by others. However, as the Comic Book Project concluded, Lolita came in and made a comment to the effect of, "Ms. Kay, I just wanted to thank you for taking the time to stay late and help us at the last minute. All of your little speeches we don't really listen to, but really, thank you for them, and since doing this project, I really feel like we became a family."

Her observation meant a lot to me, especially coming from this young woman, who can be loud and obnoxious, and negative. Just one week earlier, after learning that I had shifted a deadline to be a day earlier, she had blurted out, "Not to be mean, but why are you saying to take our time and then moving the deadline?"—a question that ignited other keyplayers in the rest of the class to shout jeers of support for her and express their disapproval for the teacher's decision.

Throughout the Comic Book Project, I have really shifted my own perspective of the students. Each and every student worked hard to accomplish this project. And while they didn't work hard each and every day, at the end of the project, they all stayed until late hours after school, getting finished, helping each other, celebrating each other. It was not easy, but we did something together, and this speaks to the fact that an invisible architecture had been created, somehow, through all of our arbitrary decisions and "little speeches" to encourage working together as a "we".

Cooperation through Personalization

I love stickers. They are very motivating. I'm just like, oh, I don't want it to be late.

Panchita

The final theme that emerged from my work with the students was that developing a cooperative spirit between us relied heavily on my ability to personalize my approach in the classroom. By "personalization", I refer to the recognition that each student brings with them into the classroom certain experiences, influenced by their culture and personality. In order to teach to the students, I must also teach with them.

In developing structures to support group work, we as teachers often introduce protocols to get at the desired result. We want finished group projects. We want the classroom to feel managed. Often in these mechanized movements, we neglect to go through the arduous process of actually getting to know the students.

Bransford, in Learning through Understanding, writes significantly about the shift that is occurring in education today that requires teachers to provide a more personalized experience. In the early 1900s, educational institutions were modeled after factories. The goal was for the teachers to process the raw material (the students) in order to reach an end project, educated citizens. In this century, however, the

paradigm is shifting. Information is plentiful, and students must be taught how to work with the information, rather than just memorizing facts (Bransford, 132).

The key to working with information is personalization, or developing a "learnercentered environment." Bransford goes on to describe this type of classroom when he writes:

Overall, learner-centered environments include teachers who are aware that learners construct their own meanings, beginning with the beliefs, understandings, and cultural practice they bring to the classroom.... The teachers attempt to get a sense of what students know and can do as well as their interest and passions - what each student knows, cares about, is able to do, and wants to do. Accomplished teachers "give learners reason," by respecting and understanding learners' prior experience and understandings, assuming that these can serve as a foundation on which to build bridges to new understandings (Bransford, 136).

As I struggled through the beginning of this research project, I found that personalization was essential to cooperating with students. I not only had to identify the intricacies of each student, but I also had to allow that to influence the design of the projects and the way the students accessed their information.

Early on in the Comic Book Project, I explored the different feelings of my classroom through a variety of ways. My classroom observations revealed significantly low productivity. While productivity does not automatically equal success, I struggled to understand how we could accomplish something together if the students did not value the work that they needed to accomplish. Each day, Patrick and I required them to complete a new draft, but within a few days, many groups fell behind. We reached a place in the project where it was time to move forward, and I didn't know what to do. At the end of a class period, the class would sound loud and disorganized. Students would be walking around the classroom, or worse - yelling across it. In speaking with Patrick, these observations became more puzzling, because their working behavior was different in his class. Even though he agreed that they can act like children, they still managed to finish the day's work and move forward with each step of their projects.

To understand my students further, I also conducted Sternberg's learning styles quiz with them. The majority of students scored as creative learners, but all but 3 students scored very highly (6 or above out of 10) on practical learning. This means that they liked to do hands-on activities, work in groups, and find application points for their learning.

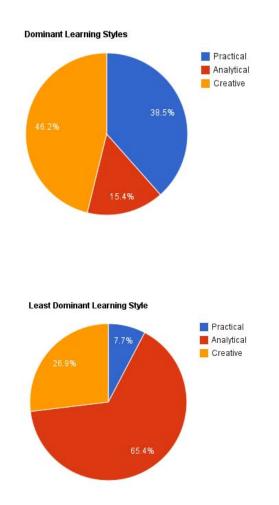


Figure 4 - Sternberg's Learning Style Survey

The pie charts graphically illustrate the number of students who score highly as practical learners. Most striking is very low percentage of students who score "leastdominant" in practical (2 out of 25 students). In reflecting on this data, I wondered with Mister Y, what could I do to support the productivity of all students, and tailor my classroom to their individual needs as predominantly practical learners?

I learned a lot from Mister Y about how he structured his classroom to ensure that students understood the challenge of the day, and also how to finish their work. He

helped me implement some new structures in my classroom to help create more clear boundaries and checkpoints for the students. First, I began using the same sticker chart that Mister Y used in his classroom. This chart basically has a column for each student, and boxes that correlate to specific assignments. A table of contents poster is affixed to the side of these posters, and they are all publically viewable on the wall by my door. In order to get a sticker, students are given clear instructions in their emails, and they must show me their work during the class period in order to get a sticker. If they are late, they can only get a checkmark. If they are two or more days late, they can only get an X.



Figure 5 - Sticker Chart

Figure 6 – Blog and Assignment Item List

8. Pencils Draft #1 Blog Post + Email	1.28.11
8. Pencils Draft #1 Blog Post & Email 9. Inked Draft Blog Post 10. RAW File 11. CDE	2.1.11
10 RAW File Slog 7 A.C.G.s	2.2.11
11 CORS FILE 12 TYP File	2.7.11
131 - (1000 -10	2.9.11
14. DP for Comic Book Project 15. Description of Citation for Contras Profile 16. APPLICATION for Country Profile	2.9.11
15. Description to Citation Project	2.10.11
16 APPLICATION for Country Profile 17 Creative Rise	2/22/11
IN CYPATILIA D. T. TIOTILE	2/23/11
TOTAL TOURS AND THE TOTAL TOUR	3/3/11
	3/8/11
	3/14/11
21. Weekly Self Assessment #1	
23.	

The first day that I implemented this strategy, it made an enormous difference in the feeling of the classroom. Typically, at the end of the day, the students would be bouncing off the walls and the majority of them were completely detached from their work. With the sticker chart, I found that fifteen minutes before the end of the class, there was a visible bustle from students. More students would come up to me with their computers in tow and show me their work. If it did not meet with approval, students would groan or complain, but would rush back to their tables to fix whatever needed fixing before hurrying back to show me.

To direct their work on a more "big picture" perspective, I also started developing individual assignment checklists. This was a simple sheet of paper with all of the assignments for the project and a little box next to each assignment. Students who traditionally would spend their classtime bouncing off the wall would instead sit quietly with their checklist, raise their hand, and show me their work and ask, "Is this that?" They utilized the checklist as a visual tool to tell them if they had finished, or not.

These were great strategies for my students, but the point is not in the strategy. The real key to all of this is that I struggled to teach this particular classroom. The end of the day felt disorganized and confused, and it wasn't because the students were lazy or bad, even though their behaviors were not favorable. It would have been easy to write them off as incapable, but that wasn't the real story. Every year, I have a different group of students, and I must learn them before I can teach them. This year, I stretched to grow as a practical learner myself, so that I could provide my students with the specific supports they needed to stay focused on the big picture and successful with their work.

CHAPTER 3: MOMENTS & THEMES

Although my research unofficially began as soon as the students walked in the classroom on the first day of school, the majority of my data revolves around a single project that I designed collaboratively with Patrick Yurick, the multimedia teacher at our school. My research took on a very personal nature as I went beyond merely observing group work amongst my students, and as I too participated in collaboration with a colleague. I believe that my role in the classroom is as an equal participant, so it felt natural for me to also find myself grappling with the same themes my students faced in their work.

Throughout the process, students reflected on cooperation in the form of cooperative moment recordings. From these recordings, the themes of the action research project emerged. I selected several students to interview after the project, to clarify the moments they discussed and to attempt to capture their experience with the project. Many of the moments that I include about the students come from the students' perspectives. Through my interviews, I had the opportunity to pull back the curtain on their experiences, and I have tried to let their voices speak loudly, alongside my own experience with the classroom and my journalling about cooperation.

Comic Book Project: An Overview

It was the third month of the schoolyear when we began the Comic Book Project. On the first day of the project launch, Patrick and I announced the basic objectives: first, everyone is an artist and each person will do a page of artwork; second, this comic is obviously an educational tool about learning differences; finally, our work will be collected and exhibited at Comic-Con, if it meets the standard of professional quality. We began with the big picture, and then daily, provided more information about what the students needed to know.

The parameters we set up for the project required that each student was responsible for designing different aspects of their mini-comic. Each person needed to write the script for one of the panels per page, and ultimately, each person would

complete the artwork for one entire page, too. We wanted the each of the students to be intimately connected to the design of the entire mini-comic, so that no single person dominated the creative process.

For the first draft, students followed a script-writing protocol that had each person responsible for a number, and they took turns giving ideas for each of the five panels of the page. The person responsible for that panel would present his or her ideas, the group would have a little time to offer feedback, and then the person would make a decision. They took turns in this fashion to create the first draft of their comic. (See Appendix G)

During the art phase, we had them follow a similar protocol for designing their characters. Each artist created an original sketch of his or her idea for the character. Then they took turns selecting one distinguishing feature from each sketch and combining all of the features to create a character in common. At the end of the protocol, students worked together to complete Character Design Worksheets for each of their characters, striving to make their versions of the main characters look as similar to one another as possible. (See Appendix H)

CHARACTER DESIGN WORKSHEET CHARACTER DESIGN WORKSHLET CHARACTER DESIGN WORKSHEET 10-10 COLO 1000 TITE Shorked CH BY 100

Figure 7

We introduced many professoinal standards for their pages, including requiring students to draw different shots for their comic panels, such as mid-shot and full-body shots. While the students developed their sketches, we also involved older and more

experienced comic book designers from our school's Graphic Novel Project (GNP). Each group of 9th graders periodically would send their work-in-progress to their mentor to receive feedback and suggestions. Patrick serves as the adviser for the GNP, and he primarily worked with these students in soliciting their feedback and input on the comic design process.

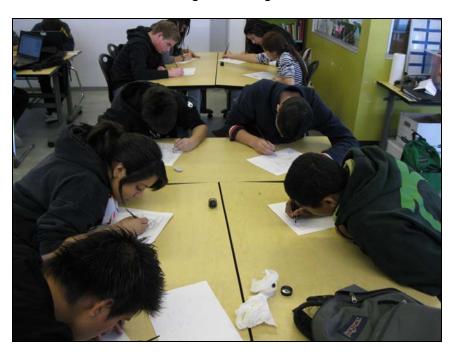


Figure 8 - Inking

The final phase of the artwork had the students drafting their pages with rulers and careful measurements. They spent several very quiet days inking their pages by hand with pen nibs and pen nib holders, being careful not to splatter the ink or break the delicate tools. When they finished inking, they scanned their pages and began doing digital editing, type and color using Adobe PhotoShop.

Throughout the project, Patrick and I co-taught the classes. This was complicated by the nature of the exploratory teacher's daily schedule and how they are currently involved in the "core teams." As a "core teacher," I teach two classes of 28 students the subject of Humanities (English and Social Science) for two hours a day for two semesters. As an "exploratory teacher," Patrick teaches only one of my classes for one hour a day for one semester. In order to involve all of the students of my team in this project for both semesters, I would typically go to Patrick's room during 1st period in

order to understand the instructions he presented, so that I could duplicate those instructions for the class of students that he did not teach. In the afternoon, the students who had already seen Patrick would get an additional two hours to work on what they had started in his class.

Patrick and I designed this project to introduce students to the types of demands in adult world projects. We wanted to get the students involved in industry standard work, with the hopes of being able to present their world to an adult world audience, as well as use their work as educational tools for students and teachers. Several different factors made this project intensely demanding for everyone involved. We had to cope with very limited amounts of work time, strict deadlines, co-dependency with our group members, and the pressure of creating a high-quality, professional product. From this situation, a number of different themes emerged regarding how we experienced working together. In this chapter, I discuss the themes through student and teacher narratives and corresponding "cooperative moments" that I feel illustrate how we worked together in a group project.

<u>Theme 1: The Pressures of PBL</u>

The greatest challenge during this project was definitely meeting deadlines. It was really hard to meet deadlines for me because we had many drafts due in a short time. It was a little challenging for me because sometimes we were working with either new techniques, materials or software. But I think it was a very good challenge for me, and I felt I have learned to manage time more wisely.

- Diego (in his final project reflection)

Student Perspective

The parameters guiding the project were challenging, to say the least. Students confronted many difficulties, both as a group and individually. After the project, the students reflected on their experience with the project. Based on their unique personalities, they found different aspects of the project challenging.



Students experienced the pressures of a professional workplace environment. They worked in teams to meet deadlines and produce quality end products.

Isabella spent a lot of time reflecting on the demands on the project during our interview. First she commented on the first phase of the project, saying, "It was kind of strange because I didn't know how to draw scripts at all, how to make the characters talk like a normal person my age, like how to express themselves, like how to make it real, so people can read it and understand it really fast."

Later, she also commented on how much she learned about drawing comics. As she began reflecting on the entire process of the comment, she listed "everything, everything" that she had learned.

She said, "I thought I couldn't get myself into a project. I thought I would get really distracted and not do any of the work, like anything, but I did. It was like, woah, I finished it." She commented on working with her team, turning in assignments on time to get the stickers, following the video tutorials, drafting her panels, working with PhotoShop, doing the panels, making corrections, selecting colors, inserting the type into the word bubbles. She concluded, "It was really hard. But I did it."

Isabella's difficulties reflected virtually every aspect of the project requirements, but the challenges that the students faced were also very nuanced and reflected their individual personalities. For example, Autumn confessed to me that, although she was artistic, she had never shown her artwork to anyone before. She said, "First, I felt really uncomfortable with it because I've actually never really shared my drawings other than with my friends." Based on her artistic talent, her group naturally gravitated towards using many different elements of her character designs. As we discussed this together, she seemed embarrassed to have been singled out as "the artist" of her group. Autumn reflected.

Sometimes I feel pressured, because people think that my drawings are good but I normally don't really think about that. It just feels odd when people say, 'Oh you're drawings [are] really good and stuff' and I didn't want that to interfere with [the character design] at all, but it sort of did... I think it's because my drawings looked good, that's why they chose them, but I'd rather have it with somebody else's perspective.

Autumn expressed the difficulty of having so much influence in a group. As a quieter student, she felt self-consicous and "pressured" to share her artwork.

In another instance, Lolita had to confront a lot of anxieties that she has while she works with technology. She said, "I get frantic and I kind of sometimes get really anxious and I feel like I'm not going to get anything done." She had not previously gone to a school that used computers at all, and she is right that "it's a hard system to learn." Throughout the year, she had to come to terms with her anxieties regarding technology and computers, and those pressures impacted her feelings during the constraints and expectations of this project, too.

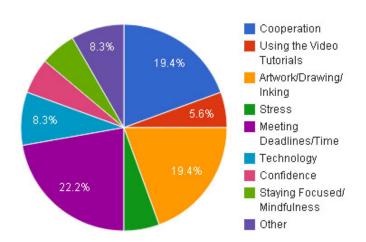


Figure 8 - Reflection on Challenges

Many students commented on how difficult it was to meet the deadlines. As shown in Figure 9, the pressure of time and deadlines was the singlemost common challenge. Cooperation and doing the artwork were both also mentioned frequently. I also categorized a few challenges as "Other" because of their uniqueness. One student commented that she found it very difficult to depend on others during this project. Another student had to cope with getting very sick and missing over a week of school during the script-writing phase.

Teacher Perspective

As teachers, we were responsible for the establishing the parameters and pressures of the project. We had the enormous challenge of actually structuring the project in a way that every student could access the material and be successful with completing the project.

Although Patrick and I had both worked at HTHCV for the past three years, we had never really worked to design and execute an interdisciplinary project together. As mentioned in the Setting description, our school was designed to support collaboration between teachers, but mainly through the structure of the team. All time, energy and resources were dedicated to my working with my cooperating Math/Physics teacher. We shared class time, planning time, prep periods, 56 students, a team budget, an office, and a classroom with a moveable wall. Collaboration was meant to happen here.

But Patrick is one of our school's exploratory teachers. As I mentioned, at any point in the year, Patrick teaches half of my team of students. His classroom is all the way at the end of the school. Our teaching time does not line up, obviously, and we never have scheduled meetings.

These structural details made working together on the same project very challenging. Until this project, we had never really even seen one another teach. We both had very different mangagement and teaching styles, which created enormous disalignments when we attempted to accomplish the project together. At the time, I did not even understand what the problem was, but we both began to feel like we had no idea what was going on in the other classroom, or how to follow up with the students to make sure they were finishing their drafts and were ready to move onto the next step.

Typically, Patrick breaks his project down into daily pieces that the students work on during his class, and show to him before the end of the period to get a sticker. When we began doing the project, Patrick essentially forgot his method for formative assessment, and it wasn't until the second or third week of the project that we both noticed and commented, "This isn't working." We had never discussed how to check on the students' work, and so it wasn't until the middle of the drafting phase that we noticed that some groups were finishing, and others weren't. We needed all groups to move through the drafts, and not just some.

I commented one morning as we were carpooling that the students just didn't seem to care. By the end of the day in my class, they would be collectively loud and obnoxious, and I didn't have any method for motivating them to finish their drafts. The next day, Patrick would introduce the requirements for the next draft, but many groups never actually finished the draft before. During one particularly emotionally charged Thursday, we had a conflict that resulted in an understanding of the disalignment, and we both brought back our individual management systems to ensure that students knew exactly how to finish their assignment for the day. Eventually, I adopted Patrick's method of formative assessment so that there could be a fluidity between classes for the students to know if their completed their work.

Creating shared management systems challenged us both. On the onset of the project, we hadn't even realized we were disaligned. Attempting to work out agreements together so that we could support the students' success was not easy. As Susan J. Rosenholtz writes in *Teachers' Workplace: The Social Organization of Schools*, "Norms of collaboration don't simply just happen. They do not spring spontaneously out of teachers' mutual respect and concern for each other" (Rosenholtz, 1989).

As the students moved through the difficulties of each step of the project, so too did their teachers. We had to cope with how to best support them through those difficulties so that we could all accomplish the creation of this product together.

Theme 1b: Emotional "Triggers"

My Greatest challenge for me in this project was drawing. I am not very confident in my drawing skills. Every time I would draw a picture or shape I would instantly look at someone else's drawing and compare mine to theirs. Sometimes theirs would be better and I would tell myself that my drawing sucked. But it really didn't I was just comparing my artwork to someone else's artwork that was on a different level of me.

Maricielo (in her final project reflection)

Student Perspective



Students working in collaborative groups experienced frustrations when their teammates "triggered" their emotions.

In addition to the structural demands of the project, students had to work through anxieties that were triggered by simply working with others. In Chapter 1, I discussed how students had journalled about their triggers during the second project of the year. Among the triggers, students expressed being ignored, having people not take them seriously, or hearing rude remarks or sarcasm.

While working with each other, sometimes we structured protocols to help the students share ideas, but even protocols cannot prevent people from having conflicts of opinions and having to confront one another, or confront their own insecurities. I

already mentioned Autumn and Lolita having to confront their insecurities regarding artwork and technology.

Kat, a deeply reflective and analytical student, explained several situations where she had to work through her triggers during the project. The first situation happened during the drafting phase. At first, her group had gotten along really well. On the first day of the project, they all got excited about their script, and possibly getting to tie in zombies to their comic about Asperger's syndrome. During each of their cooperative moment recordings, they all commented on how great the first day was while they brainstormed ideas for their comic. Maricielo was the most enthusiastic when she expressed, "The whole time...in that cooperative moment I was thinking, wow, our group is so good, um, I love my group...I gave ideas, and then I saw different perspectives on what other people thought. And I also saw, like, what how other people can come up with different ideas and then they mesh into one good idea." Maricielo concluded, "It was so great, and it was so fun, and it was, ah! it was fun!"

But that was only the first day. As the project moved forward and more constraints were given about the script, the group ran into snags. They couldn't agree on a way to move forward, especially when we introduced the script requirements for Draft 4. In order to help the comics make more sense, we explained that each comic

could only have 3 scenes, 4 characters, and the entire story had to take place in a single day.

Kat described that time during her group. When they got stuck, they just stopped working on the drafts. They turned and started talking to people. They got into more fights, because some people wanted to keep working, and other people just wanted to chat. As the days passed, Kat realized something had to change. She said, "I was personally freaking out because I didn't know how to tell people [to change everything] and I thought they'd be mad at me." Kat struggled with feeling like people wouldn't like her if she stepped in and tried to redirect the plot of the comic, but she knew something had to change.

During this part of the comic, I confronted her about it after class one day. She expressed her worries to me, and I told her, "Sometimes, you may not like that that's your role in the group, but it is and you have to be that." She understood, and she started tearing up. Later, she reflected on that moment as being a "mini epiphany."

I was freaking out because [I thought], oh, people are gonna hate me because I tried to change things and people are gonna think I'm bossy and you were just like well, sometimes you have to, and people respect you for that. Sometimes it just doesn't matter if people say that, you're just helping everybody else. [That moment] was just like, one of those, really like, you feel good about yourself, and it just pushes you and you're like, well, now I don't have to feel bad about this ever again, cause I realize what I'm doing is good, it's not bad.

Kat realized the unique role she played in groups in October during the Value Debate Project, but still struggled to communicate with her new group of students. Her group fell behind in the drafts, and at some point, she had to take responsibility for the work of the group, and pull people together.

Isabella, another student in Kat's group, expressed a lot of concern about being able to share her ideas with others during the scripting phase, because she was worried that people wouldn't listen to her or they might have ideas come into conflict. She reflected at the beginning of the year, the first time that she had had a different perspective with another student, "Lolita sat next to me, and she thought a different way about religion, I thought a different way about religion. And it was like, my mind got like, crashed into the other mind, and I was like, 'No! I don't think like this, no I think like this." So at first, cooperating was scary. She remembered, "I got really mad

sometimes and I got really frustrated because I was like, oh my gosh, he has a different idea, I have a different idea, what if they don't involve my idea into the project?"

After working with protocols and learning ways of collaboration, Isabella feels a lot more comfortable with different perspectives and conflicts. The first day they brainstormed ideas for the project, they had many different ideas. But they were able to listen to one another by using the protocol and taking turns. She said, "[When] we had the argument with Kat and the other ones, that's when I put the [protocol] idea, just OK, first it's you, then it's you...then number 5, you're the last one." She concluded her reflection on that situation with,

And now, if you put me in another group, and I had this argument, I know what to do now. I know not to get scared and freak out and go to the restroom now...Like, OK, calm down, try to calm all my team, and OK, let's do it like this. This reflection highlights the intensity of the learning required for students to work together. Isabella, along with the rest of the students, needed to understand different ways of approaching cooperative problem-solving. Once she had strategies, she felt empowered to move through difficult situations and arrive at group consensus.

Being confronted with real conflicts forced many of the students to deepen their understandings of themselves, and of one another. On the last work day of the project when the entire team stayed at school until 7:00PM working on the comic, it was a really beautiful time of finishing pages and supporting one another. However, some of the students were so far behind that this day was extremely stressful for them.

Around 6:00PM that evening, one of the students approached me and asked me if he could leave, because he was finished with his page. I told him, "I won't stop you from leaving, but don't you think you need to be here to support the rest of your group?" He was really upset, and said, "Why should I support him? He cussed me out!" He went on to explain that, when he finished his page, his group member had made a comment like, "That's a first!" and it had really hurt his feelings. This is a student who has expressed before that it really bothers him when people call him stupid, and I agreed that what the student had said to him wasn't fair. At the same time, I helped him understand that people try to hurt others when they are hurting the most. I asked him to reflect on what it would be like to be his team member, who at that point, was not finished with his page and had struggled to meet his deadlines for weeks. I could see

the student's countenance completely change as he began to understand his teammate and why he had lashed out at him earlier.

Other students that night faced challenges with the technology, and with computers running out of battery power and turning off in the middle of their project work. It was a night of celebration as pages got finished, but also of extreme stress and anxiety as student encountered problems and lashed out at themselves and each other. When we work alone, we have to confront our own fears of failure, but when we work with one another, we have to do that out in the open where it can get a little more public and a lot more scary.

Teacher Perspective

Teachers collaborating together have to face the same kinds of triggers. I cannot say that it is more difficult than when you are a student, but I can say that teachers have especially little practice working jointly. Fullen and Hargreaves (1992) comment on the difficult nature of collegial collaboration in the educational world in their book, *Understanding Teacher Development.* They write:

Open collaboration, extensive collegial conversation, mutual observation, and interactive professionalism are not yet an integral part of most teachers' working lives. In the main it is privacy, individualism and isolation that remain the persistent and pervasive conditions of teaching. . . It is, therefore, not at all surprising that teachers often associate help with evaluation, or collaboration with control. Isolation and individualism are their armor here, their protection against scrutiny and intrusion (Fullen and Hargreaves, 55-56).

Their comment about why teachers hesitate to work together deals with the emotional nature of working with another professional. They liken isolation and individualism to armor. The current culture of education does tend to lean towards isolation, and working with anyone can be extremely vulnerable because it opens you up to scruntiny from another professional.

Patrick commented on this aspect of being a teacher during our interview after the project ended:

[I]t's a lonely place for every teacher to be because you're the only one making decisions about the security and well-being of the entire class as a whole and without receiving direct affirmation that you're doing the right thing all the time,

you question. You're like, I have to be the one questioning myself because no one else is. So how am I improving if I'm not guestioning myself? Patrick's comment reflected his understanding of how I survive as a teacher. I know that I am not alone amongst teachers in feeling an enormous pressure to make the "right" decision for my students.

When we began working together, it threw off the balance of our securities. For me, my major trigger revolves around the insecurity that I am "bad teacher" or I am making the wrong decisions for the classroom as a whole. Throughout the Comic Book Project, I feared that I could not be "enough" of a teacher for this particular group of students. I feared that I could not make the right decision for them, because I couldn't understand the group of students, and it seemed to me like Patrick had no issues with them whatsoever.

As I worked with Patrick, I found collaborating to be a surprisingly vulnerable endeavor. Our working relationship developed, as did our friendship and understanding of one another. Where normally I face my insecurities as a teacher on my own, or on the weekends, I was confronted with having to work through these with him as our project became more intense and more challenging.

While Patrick also dealt with insecurities, his trigger revolved around his sense that he had "everything under control." When he started to feel out of control, he moved into a nervous place where he found it very difficult to trust me and let go of his expectations of the project outcome.

Although we had several "cooperative moments" throughout the project, one of the most memorable for both of us occurred about one week before we were scheduled to finish the project. It was the end of a long Tuesday, and the students were just finishing laying out their pages with their panel borders and gutter space. Patrick designed video tutorials to assist the students with the drawing, and he had briefly explained to me the trajectory of the art process. That day, two of the students finished laying out their pages early, and I directed them to go ahead with their basic shapes, making sure to draw lightly and not to start final lines.

That night, I came into Patrick's room and mentioned offhandedly that two students had finished early, and I had directed them to go ahead. Patrick seemed put off, and said there were more videos, and I hadn't realized there were. He was

muttering to himself about the video tutorials he hadn't yet made, and it was already 5:00PM and he didn't know when he was going to have time to do it. He asked me, "What should we do?" and I told him, "I don't know. If you don't have time to do the rest of the videos, we can do something about the Afterwards or the writing portion in the afternoon to bide time." But he didn't want to bide time. He wanted to move forward. I didn't know what to do, because I couldn't make the videos.

He made some comment then, "No, I don't know what I'm asking for. I don't know how to collaborate with you right now." I asked him, "Why not?" and he responded something like, "You're putting pressure on me to get everything done, but I don't have the time because this isn't the only thing that I have to focus on." He went on to remind me of all the other projects he has his hands in - from the other 9th grade comic projects, to the GNP, to the project he was collaborating on in the 11th grade, and that's when I remembered that we were supposed to have had me actually do a page myself, so that I knew what the hell I was talking about when I was trying to teach.

He accused me of not caring about the project, and I wondered in my head if he was right. These comments began triggering my insecurities about being a "bad" teacher and making the wrong decisions. I started feeling like I hadn't contributed anything to the project at all. I didn't know how to do practically anything about this part of the project, and I realized that I was inadvertantly putting this pressure on him to be the guide.

We got into a fight about it, and I confessed all the things I was thinking about myself and who I was as a teacher and "not being enough." It was a difficult carpool home, to say the least. When I got home that night, I journalled about the experience and I concluded:

He triggered my demons, but I triggered his, too. He was feeling like it was all going to fall apart and it was his fault. He heard my 'oh, whatever' as an oh, whatever to the project, to the videos. He didn't hear, we're going to work through this, and I am excited to work through it, because I wasn't being present. He didn't realize that he was subconsciously lashing out about that, and getting defensive, and I didn't realize I wasn't being aware until I was in tears.

It was just ironic, all of it, and it's a part of how collaborating really works. It's not like a dream world where people can just work together and things come out better than before. I would like to believe that's what is the outcome, but honestly, right now, I can't see it. I just feel the pain of actually truly interacting

with another human being, who is a teacher, who, in fact, shares some of my own inadequacies about teaching.

In this journal, I began to really understand the emotional nature of collaboration. It was also in this situation that I realized that the "we" in my research question referred to all of us, students and teachers both.

When Patrick reflected on this situation, his perspective dealt a lot more with his own triggers of having control and making sure his structures were in place to support the students. He said,

I think I just felt like you were like, fine, you take the lead, and then when I left you alone you did whatever you wanted to do anyway. Well, that's not me taking the lead, that's you saying, 'I'm listening to you,' but then not listening to me, and I just got upset about it. That day, it was just a long day, and I needed [you] to know that I was not OK with that.

When I had told the students to go ahead with the artwork, Patrick felt extremely frustrated because he felt like I was not really listening or even trying to listen to his instructions.

He willingly took the lead in the project. It was sensible, since he was the expert in how to draw comics. But sometimes he felt like I didn't understand the different levels of the project, and which things absolutely had to happen in order to move onto the next step. As he reflected later,

A lot of the times when I was talking to you throughout the project, just, everything that I would talk about that needed to happen, in my mind, needed to happen. So there was a lot of anxiety about those things not occuring,

because I wasn't in your classroom to make sure that those things were going on. With the situation where I had the students work ahead, Patrick reflected,

With art supplies, it's like [your partner] Ted. Ted wouldn't just give the kids a drill saw and just figure out how it's going to be done. That's how I feel like that time when [our student] worked ahead without knowing what she was doing, I felt like we were handing her a drill saw and being like, ruin your piece of artwork without knowing why you're ruining it. Cause I'm OK if they ruin it after I've given them instruction, it's because after they've done something terrible to their artwork, and then I'm like, Oh, I should've told you not to do that. They get all resentful cause they're like, you're the teacher. That's your job to kind of teach us not to do. But if they do it and they knew, then it's not really my fault any more, because I provided them with the resources to not screw up that thing. But so when she worked ahead, what I felt was that I was like, I was rather she'd done busy work and waited until I'd given her the instructions, but I felt you were kind

of stepping on my toes because you were letting her work ahead, even though you didn't know why she shouldn't work ahead. In this conflict, we both learned a lot about each other, and our unique emotional triggers. I learned a lot about Patrick's perspective on how to teach art. Though the conflict was painful at the type, it proved fruitful to our understanding of one another as educators and as human beings.

We both had to confront each other almost constantly to make this project work. Patrick's feeling was that we should have had a lot more conflicts throughout the project. Regarding conflict, he feels like it's important for people to have conflict if they are actually going to be able to accomplish something. He reasoned,

When people keep things in and don't share, that's you choosing not to accomplish something. You're like, I disagree with this person, but I'd rather just let them believe that they're right.

We did have our fair share of conflicts during this project, though, and I also found myself confronting my insecurities, and having to share them with another teacher, which was very difficult to do.

In the end, not only did we accomplish the project together, we also learned a lot about ourselves, and each other. I learned that Patrick is very trustworthy, even if he is frequently late to meetings and sometimes waits until the last minute. He taught me a lot about accomplishing something with the students, and how to help them meet deadlines. And Patrick learned that I am, as he stated, "incredibly passionate about teaching things that can't be taught through the completion of any one thing."

In a lot of ways, Patrick and I are completely opposite with our approach to the classroom, and this frequently resulted in conflicts. Patrick even commented,

It's frustrating to me sometimes because I'm focused on completing the task at hand, and you're more like, well, there needs to be balance of the mind and body and spirit and all those things, and that's more important because that's what you have to deal with for the rest of your life, and I'm like, but that's not what we're dealing with right now, a deadline's what we're dealing with right now. What I learned about you is you have this perspective that I need to trust even though it's counterintuitive to some of my own perspectives.

So even though we are very different, and that triggered our security with ourselves as teachers and the decisions we made for the classroom, when we worked together, we balanced that for the students.

Theme 2: "I" vs. "Other"

I feel that I wasn't put on the right group because we always came to disagreements, but I feel that's what made our comic stronger and more effective. Another reason why [I wouldn't want to be in the same group] is because I don't like them in particular, so it made it harder for me to be understanding.

Annais (in her final project reflection)

Student Perspective

As each aspect of our project was designed for students to incorporate each other's unique perspectives into the script, the dialogue, and the design of the characters, it was inevitable that they would occasionally disagree and come into conflicts.

When students reflected on their cooperative moments, I was struck by how some students talked about those disagreements. They explained the situation using "I wanted this" and "they wanted this."

The situation Vanessa described was particularly striking. A conflict she found significant to retell arose during the time when the group had to design characters. That day, the five of them sat in the corner table of my classroom and struggled loudly through the differences in their opinions. I remember it clearly because, after a while of loudly



Students experienced frustrations when they encounted conflicts in their groups.

arguing, Vanessa signaled me over to take sides in the debate. She explained passionately, "I want the mom to be a prostitute. Is that OK?" Gaby looked up at me with eyebrows raised, and Robert and Diego kind of shrugged their shoulders. I navigated my way out of the situation carefully, not wanting to really make any sort of proclamations from a place of authority.

"Well," I started slowly as Vanessa sat with her eyes narrowed and arms crossed over her chest, "there's perhaps nothing wrong with being a prostitute. It's a lifestyle

choice. Then again, I don't know if it's important to your story about conjoined twins if you mention that, and it might be a little distracting." Gaby was quick to agree, "That's what I said!" As I walked away, I heard the debate continue, with Vanessa unwilling to budge and the others unwilling to draw in cleavage.

Vanessa expressed her frustrations with that aspect of the project later during our interview. She said.

Designing the characters was ughhhh. Ugh, they want it this way, but I want it this way. They wanted something simple, but I wanted something that you can say, oh that's, I can see you...I wanted like, character. Like, detail things. But they wanted something simple.

She spoke with the same passion I had observed in her during that time of the project, even when she reflected on it. She concluded, "I was the only one who wanted details, and then other people wanted different eyes...I quess I can see, it was against each other in a way. Against each other in some way."

The students moved from a place of being polite and sharing with one another into a new field of communication where things begin to break down and people are forced to take sides.

Teacher Perspective

While I did not notice this theme between Patrick and myself, I cannot help but think back to the beginning of the semester when I so desperately attempted to form connections with the students. In my cooperating with them, the "I" vs. "they" came out very clearly in my own perceptions.

My journals that I shared earlier in Chapter 1 included phrases like, "we feel like adversaries" and my perception was that "collectively, their main goal is to oppose me." To move past this feeling of "I" vs. "they," the answer is personalization, which brings us to the third theme.

Theme 3: Understanding the "Other"

"If I did this project again I would want to be in the same group because I learned something new. I learned that it's not right to judge people before you know them. when I saw who my group was i thought that we were never going to finish but then I realized that I was wrong."

Debbie (in her final project reflection)

Students developed their ability to work together when they were able to see past the otherness of one another and truly develop understandings of each person's unique personality and ways of operating in the world. I love the way Kat summarized her perspective on working with others:

It's an interesting thing. It's very interesting. Because everybody's different. And people are just up and down and flip and flop, so you gotta take it day by day when you work with other people.

During the year, Kat discovered herself as an analytical learner, and developed a strong interest in personality tests and differences. Following up a theme that emerged in the cooperative moments, I asked her, "Did you learn anything about other people during this project?" and she responded,

Yeah, most definitely. Cause I'm actually a lot interested in things like that. Analytical stuff. But I like understanding people and learning about them. So, just like watching them and how they react to things, it just helps you, like, hey you should be this way towards this person versus this person. I notice people's personalities, and the little things they do and their traits.

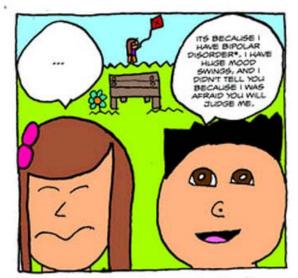
She developed a more nuanced perspective of several people in her group, but especially of Shaniquawa. Before the project, Kat never really talked to her. She explained, "'cause sometimes I thought, ooh, I think she seems mean. But now, that's kind of just who she is. Not mean, but like, just she's got a little bite...she's a little shark."

Autumn had a similar revelation about Annais during the project, too. She had worked with her earlier in the year, and had said, "She did really seem negative, but now she doesn't." Autumn was unsure why her perspective changed about Annais, but her perspective on cooperation changed a lot during the first semester. She said,

I personally thought, if I got a good partner, they'd listen to me, and be next to me, and respect me, now, I'm like, well, it's their personality and I should respect their personality...[N]ot to bring up Annais again, but yeah, Annais. She sort of

taught me that like, it depends how you respond. Like, sometimes you just have to wait and ask.

Autumn began to understand that different people required different approaches. Many students began to give one another these types of allowances ("sometimes you just have to wait and ask") based on their growing understanding of each other's unique personalities.



Students developed new understandings of one another after working closely together on a group project.

In another instance, Lolita reflected on the first day of working with her group that her perspective changed regarding her partner. In one of the previous projects of the schoolyear, this student struggled with the technology and fell far behind in the project. Lolita had thought that her partner would never get anything done, but the very first day that they worked together on the script for the comment, Lolita's entire perspective changed:

I didn't know her, so automatically, when you don't know people you have prejudgment on them, and I thought maybe she'd be

mean...but during the comic project, man, she pulled through, and she did such a good job, and I liked working with her, because not only was she doing what she needed to, but she brought a sense of humor to the table so we all felt comfortable and that made me feel comfortable and we worked really well together.

Lolita's perspective shifted significantly. Not only did she discover her group member as a strong worker, but she also recognized how her partner's pesonality added a new and important dynamic to the group.

Teresita, a student who rarely misses a deadline, was particularly challenged by her group and having to be dependent on them. During the peer critique of draft 5, she reflected on how her group worked and commented, "I was surprised when a lot of them were actually done." The entire process of working together forced people to confront their prejudices, and understand one another.

Kat's current perspective on group work summarizes this theme. Throughout her experience in the Comic Book Project, she recognized that each person in her group was unique, and working with others cannot have a one-size-fits-all approach:

You can't just like, be like, well, I'm the one who's doing all of the work and I get it, cause that's not what it's about when you're working with people. 'Cause you have to know the people and you have to understand the people in order to actually [cooperate] successfully, I think.

Theme 4: Experiencing the "We"

At first we were all very stressed and didn't know what to do because we would have to change our whole comic. Within the day though, we shared all our ideas and came to a compromise. Working together on that gave us a lot of advantages like hearing every-one's ideas and choosing the best ones to make our comic great.

Teresita (in her final project reflection)

Student Perspective

Throughout the project, I observed the students form connections with one another through the collaboration of their ideas, and just virtually by sitting together facing each other across the table. Early on in the drafting phase, I sat on my stool and



Students experienced the genuine support of their community as they worked together to create their final product.

attempted to understand how the groups worked together. That day, the students had the task of sharing the research they'd completed and making changes to help make their comics more educational for their audience.

While one of the students waited for his computer to load so he could begin to share his research, I overheard bits and pieces of a conversation between Panchita and the rest of her group members. The comment that caught my attention was, "My grandpa died this January. Why am I

talking about this?" In between comments from her group about other things, ADHD and the research, who would go first, Panchita went on to explain, "He was like 70... & they gave him morphine..."

A few seconds later, with the computer loaded and ready to go, they had moved on from this conversation and back to the task at hand. The conversation struck me because I began to see the relationships deepen and the trust build. Even her question to herself, "Why am I talking about this?" illustrates that she herself did not fully understand this process. Throughout the duration of the project, the students developed trust between one another, and found support within their community, and not just as it related to completing their assignments.

Afterwards, many students reflected on the difficulty, but also on the importance of working together in a group. Lolita compared the project we did with projects she's done in the past, and concluded,

The thing is with these projects, you kind of have to have a group...l can't imagine doing [the comic] by myself without the support of them, because they were a really good team, and we kind of depended on each other for like, support, and for a resource of literally talking to each other and enjoying each other's company.

Lolita is the same student who approached me after the final day of the comic, the day that everyone stayed late and worked hard to finish the project. During our interview, she went into more detail about how she felt her group worked together.

[O]ur team pulled together, and we all kind of sat by each other and we helped each other out. And it wasn't just here, I'll help you, let's do this. They really, especially [two students], they really helped me personally, but then again, like, we all did stuff for each other. SO I would help [him], [he] would help [her], [she] would help [him], [she] would help [her], [she] would help.. we all connected somehow and we really pulled through and we got it done last minute but we still got it done. And I felt like we accomplished something and it was like a breath of relief, and I felt like for once, we came together kind of like almost like a family. It was really sweet.

Lolita experienced a strong sense of community as the project concluded. She experienced what it feels like to get caught up in the completion of a task that depends on each person's involvement.

As the project unfolded, Patrick and I would guide their refinement of their scripts by introducing new scripting requirements. This often felt very stressful for the students, as they struggled to understand how to change their scripts to meet the new standards. Draft 4 was particularly difficult, and many students specifically commented on this draft as causing conflict for their cooperative moments.

In an interview, Isabella commented on the difficulties of draft 4, and also on the way she served to support her group. She said, "[W]hen everybody said, 'Oh my gosh, I can't do it,' I was just like, 'You can do! We can do it! We have to finish, we have to.'"

At some point, as they developed understandings of one another, they became genuine community for one another. They became a "we." Kat laughed when she talked about her group saying, "We're actually...a really good group, and we've kind of all been stuck together for the last three months so we kind of all know each other."

Teacher Perspective

Within the context of a project or a collegial learning environment, the relationship still functions at the center of the work. Patricia S. Miller and Vicki D. Stayton write about the collaborative programming of higher education institutions. They note, "Participants believed that the interdisciplinary, collaborative programming in their institutions was due, in large measure, to the personal and professional relationships they had developed. Their relationships were the essence of the climate." As we work to accomplish something together, the people involved in the process and their relationship (or lack of it) plays an important role.

Through the process of this interdisciplinary project, Patrick and I also looked to one another for support through the difficulties and confusion. Even before we began the project, I had several moments when I wanted to give up, one of them before we'd even started. We had arranged to have a planning meeting a few weeks before the project launch. We were pressed for time on that particular Sunday – we only had 45 minutes to come up with our project outline - and we struggled to begin. Normally, we can strike up a conversation about anything, but faced with the task, I felt stuck.

"What do you want to do?" he asked, attempting to elicit some ideas from me, but I had no reply. He seemed agitated, and made a comment about the way that I was brainstorming (or rather, the way I wasn't). He said, "I need you to give me something, some variables, and then I work with that." He told me about how he'd

gone about this process with another colleague earlier in the week, and how this colleague just set out the parameters for the project, and how he was able to find a way to work with it.

I still felt stuck. I didn't know what he needed from me, and I didn't know how to begin brainstorming with him. We both felt annoyed with one another, and I felt like this was just going to be too difficult. Clearly, we have different ways of thinking about projects. I felt like it would be easier to just skip this. This failed attempt at brainstorming only served to foreshadow many other difficult conversations we would inevitably have.

I wanted to give up the entire idea of it all, and I said so. But Patrick wasn't so easily dissuaded. He encouraged me to continue going, and also reminded me that we could do something great together. Soon enough, we were drawing comics on a scrap of paper, and determining subject matter that matched the students and their needs. If not for his encouragement, I know that I would have just run the other way at the first sign of difficulty.

After the project was over, Patrick commented on the support that he received from me, as well. In fact, he perceived my role within the project as being one that was primarily concerned with emotional support. In trying to explain, he finally concluded, laughing, "You're Deanna Troi on Startrek Enterprise." As I am not much of a trekkie, I was grateful that he went on to explain. He said,

She's like this, well, and I can't explain it. That's the only way I can explain it. Because Startrek Next Generation is the only place I've actually seen this kind of role. It's literally a person who counsels the people on the ship to get through the things that they're dealing with, no matter what they're dealing with, and that's what I felt your role was. Even you were that for me. A lot of the times when I was like, "I don't think this is gonna work, we're done, we're toast," you were like, "No, maybe you need to let go of some of the things you're saying are really important." I was like, "You know what? You're right." And that was your role though. And I don't want to say that it's the mother, because that's not it. There's a logic to helping people pursue their peace, and that's what I feel you brought to it.

The function of our "we" within the project was unique, and critical. We both served different roles within the project we taught together, and I fully agree with him when he went on to say:

And [my role] was a little bit more like [a captain]. You don't have a job unless there's a captain there to be like, this is the direction that we're going in so now people have things to grapple with. Like, your role purely exists to help people

grapple with something, but if they don't have anything to grapple with and...I'm not Captain Kirk or Picard or anything like that, but I do feel like my role to the thing was like, this is what we're pursuing and I've done this before in different ways, so I know.

I relied on Patrick a lot throughout the process of this project. He had a lot of experience with comics, and we were making comics. I literally relied on him for designing the tutorials, and helping me understand each aspect of what was required for the students to complete the project. He understood the variables in comic book design, and I trusted him to guide us - both the students and myself - through that process smoothly.

Once we began working together, we became a team, and it is hard to imagine that the project could have been successful if we'd done it any other way.

Theme 5: Becoming a Part of Something Bigger

I think my greatest accomplishment in this project was the overall comic. I would have never thought in a million years that I would be making a comic. Especially one going to Comic Con. I used to hate comics in general. After this project I grew a respect for the people who make comics because now I know how much hard work they do to make them. Whenever I pass by a superhero picture or a comic, for example at Costco, I stop and glare at the pictures and think 'that is amazing'. The people who make them are truly talented I think my overall accomplishment was being able to be a part of making comics.

- Teresita (in her final project reflection)

Student Perspective

The final theme that emerged from the cooperative moments, the interviews, and my observations was that something would happen to the groups, after they became the "we" where they would find themselves caught up in "meshing ideas together" and creating something entirely outside of themselves, and creating a product that belonged to everyone, and no one, at the same time.



Students in the "zombie group" shared perspectives that allowed them all to see new directions for a comic about Asperger's syndrome.

This happened at different times for different groups, but the way they remembered it was always similar. It started when they were coming up with ideas, and everyone had a different idea, and suddenly, almost by magic, they had an idea that everyone liked, and they wouldn't do it differently, because the outcome was so good.

Everyone from the "zombie group" remembered Day 1 fondly. That was the day that they really meshed and got along. Kat recorded this cooperative moment at the end of that first week:

We were coming up with our idea for our comic, my teammates and I, and I thought we should have it more like, in school and the people just meet, but my teammates thought that we should do some

stuff on zombies, and I wasn't sure we should. 'Cause that was a little weird. And so, we finally kinda ended up as we were writing it meshing it all together and it ended up working out. I was thinking during that time that they were all kind of crazy and I wasn't sure we should talk about zombies. What I did was that I tried to make it work so that we could all have a part in the comic and then the outcome was actually really good cause now we're really proud of our comic so far and we think it's pretty good.

Many students reflected on the "meshing" of ideas that happened. In every case, students could not really express how exactly the ideas came together. They just knew that the idea belonged to the group, and not to any single individual.

For Annais' group, the generative dialogue happened later. In a cooperative moment, she reflected,

In my group, when we have different ideas, we don't all agree sometimes. Like, we all have something to say and we want everyone to hear what we have to say, so we just, we don't take turns and stuff. So that was one time. But another time when we did that, we were able to compromise our ideas. What we did was we took like bits and pieces from each idea we put it together, like, for example, one of my team members thought of um, putting in like, changing the whole story when we had to do the Draft 4 and another one wanted to just add like, therapy, to add details into the story, and what I wanted was to just change the ending. And we all had these different ideas and we wanted to share them with everyone and we wanted all to use our own idea. So what we did was we compromised and we agreed on something we all wanted, instead of, 'Oh, I want mine in mine' so I feel like this cooperative moment went really well for us.

We, instead of disagreeing and stuff, we actually got something done and made a better story than before. There must be a dozen moments when students reflected on their designs of characters, the crafting of the script, and how they created together. Each of them

contains a bit of awe about how it happened, and even a little bit of confusion.

William Isaacs refers to this as generative dialogue and defines it as, "a sort of collective flow, deeply meaningful dialogue, uncharted territory, together created something outside of ourselves" (Isaacs, 288).

Whatever happened within their groups, it was striking to note that most of the students would not have had it any other way. After the project concluded, I asked them to reflect on the question, "If you could do this project again, would you want the same group?" and out of 21 responses, all but 3 students answered, "Yes."

Many of their responses to this question were very enlightening, and captured a sense of how they experienced working together in the project. Debbie wrote, "If I did this project again, I would want to be in the same group because I learned something new. I learned that it's not right to judge people before you know them. When I saw who my group was, I thought that we were never going to finish but then I realized that I was wrong."

Even students who answered, "No," to the question did so with thoughtfulness, and not without reflecting on the things they learned from working with challenges. Annais wrote, "I would not like to be in the same group, not that I didn't like them, it's just that I felt we didn't have the same interest and the groups were based on what we all liked. So I feel that I wasn't put on the right group because we always came to disagreements, but I feel that's what made our comic stronger and more effective. Another reason why is because I don't like them in particular, so it made me harder for me to be understanding. On the other hand, this project made me become very understanding and patient."

Teacher Perspective

As I reflect on the project, I am left with similar feelings. I have clarity about the difficulty of working with another teacher, and about trying to accomplish something

great. Towards the end of the project, Patrick and I came to some critical understandings of what we gained through working together, and it was also a sense of becoming something greater than ourselves.

Our last conflict about me telling a student to go ahead with the drawing was important for remembering why we were doing this in the first place. We met again at my house that evening, and talked about what had happened earlier. Through the conflict, Patrick realized that he hadn't really asked for help. He felt sure that if we'd done the videos together, they would have come out better, been more easily understood, but he hadn't even thought to include me in that process. That night, he reflected, "You can't just create things on your own, not if you want people to be involved in them."

He reflected out loud with me that he felt that his entire perspective on teaching and education was going through a paradigm shift. Patrick practices aikido, and likened our working together like the experience he'd had in aikido. He said, "At the beginning, there is pain. But as we grow, we are able to handle the pain in a different way. In the end, there is no pain." Throughout the 8 weeks of our project, we had experienced a lot of stretching as we learned one another and moved through our emotional triggers.

That night as he reflected, I realized that one of my main contributions to this project was my values and philosophies, and his main contribution was the practical expertise. Initially, Patrick hadn't wanted to do a collaborative project at all. I helped him understand that we could make a group project peaceful, and that even when it wasn't peaceful, it was worth it. Together, we were able to put grandiose ideas into practice. Through our perseverance during the project, it has opened his eyes to possibilities for collaboration, and also, of its benefits.

In this last conflict, we both started to understand the worth of the pain and the persevering. In the middle part, there is only mess and faith that what we do together is more important and more meaningful than what we do alone. In the resolution, there is the proof.

When I look at the pages drawn by so many different artists, and I read the stories crafted by so many different minds, when I lay them all out and see how

beautiful they became, I can't help but be completely baffled. Not baffled in the way that I was at the beginning of the year, but baffled by how we managed to get through it. In all my years as a teacher at a project-based learning school, in all of the projects I have ever done, I have never seen 100% of the students get invested and finish the project. There are always one or two that give up before the end. In the Comic Book Project, 100% of the students finished their pages. They didn't all finish by the deadline, but they made time after the project was over to stay after school and work until it was done. I don't know how else to explain that, except that we all got swept up in something that was larger than ourselves, and that something demanded that we see it through till the end.

CHAPTER 4: CONCLUSIONS

I feel like there is a lot more to say all the time.

Patrick Yurick (in an interview)

This project only begins to brush on the complexities of group interactions and the individual experiences that occur in a project-based learning classroom. I sought to understand the evolution of dialogues and ways of talking within the classroom, as well as the evolution of students as they grew as cooperative learners. At the end of this project, I have learned a lot about what it means to develop community in the classroom, and also about cultivating an environment where teachers and students alike can speak and feel heard.

Summary: The Themes

In this study, I identified five themes regarding the experience of working together in a project. The first theme related to *the difficulties that emerge* as students and teachers both work to grapple with the pressures of working jointly towards a common objective. I sought to identify how we perceive the pressures of PBL, and these related mainly to pressures of time, deadlines, sickness and absences, and especially, not understanding how to do what was demanded. As these pressures built up, it led to the second half of this theme, which was the experience of *emotional triggers*. Students and teachers both felt frustrated by misunderstanding, insecurities, and confrontations.

The second theme dealt with the *perceptions of conflicts between group members*. As students moved forward into the thick of the project, different "camps" would emerge. Students frequently identified themselves as "isolated" within these arguments, and an "I" versus "they" pattern emerged from their reflections. They felt fundamentally separate from the movement of the group.

The third theme tracked *the growth of students' understandings of the "other."*Gradually, as they developed relationships, students began to understand the people

in their group, and related to them as human beings. Students who they thought were "lazy" became hard-working and serious. Students who they thought were "mean" or "negative" transformed to sweet and nice. Students also began to understand how sometimes we need to be flexible to work with others, understanding our own idiosyncrasies as we attempt to work together.

In the fourth theme, I witnessed students and teachers experience the genuine support of the group. From one another, they found a great source of community, encouragement and comfort. Fifth and finally, as students and teachers expanded into the "we," they found themselves caught up in a mysterious act of creation, that they were a part of, but were not in control of. Often students would describe this as the "meshing" of ideas, and found that what they could do within the group was greater than what they could have done alone.

Implications for a Project-Based Learning Pedagogy

My project captured authentic moments of collaboration between teacher and student, student and student, and teacher and teacher. Isaacs ' theory about movement through fields of conversation went beyond the concept and into the real as I looked closely at our interactions, and asked students to remember their experience. These observations suggest several critical implications for educators currently working in a project-based learning environment, as well as some interesting perspectives for those thinking about moving their classroom towards meaningful project design.

Engage in meaningful work with students and colleagues

As an approach to teaching, project-based learning means many things to many people. Some projects take on a fairly narrow focus, and require little original or creative thinking from students. These projects can be extremely useful, especially as they engage learners with the practical application of multiple intelligences. However, as PBL evolves as a teaching philosophy, the direction of PBL should move towards

projects that engage young people in adult world situations, and ask them to participate in something real.

In the Comic Book Project, I worked with the multimedia teacher to facilitate the creation of a graphic novel about learning differences. We structured our project in such a way so as to make every person necessary to its completion. No single person dominated the creative process, and not even the teachers had all of the answers as we moved to accomplish something no one had ever done before. Elizabeth Soep (2008) describes this type of project design as "collegial pedagogy." She explains,

[Collegial pedagogy] is different from collaborative learning. Collaborative learning implies that there is still an adult who has all the answers, and who is hopefully doing a good job of engaging young people in authentic questions and practices...In collegial pedagogy, young people and adults carry out projects together where they are truly dependent on one another to get the work done. Both parties come in with a certain set of skills, experiences and social networks. This kind of pedagogy values the perspectives and questions that young people bring, and the sensibilities they have that may be unfamiliar to the adults.

Each student and teacher played a vital role in the creation of the comic. The teachers served to provide direction, and the students were responsible to contribute uniquely to the content, story, and art.

As students engaged with one another in a professional and real world context, they experienced working with one another in a very similar way that I experienced working with my colleague. We all became invested in working on a project so large that none of us could have done it alone. Soep encourages the creation of environments where people "find themselves in situations where they are just at the edge of being in over their heads." She explains that in these kind of situations, "people would look around and turn to others to find ways of moving forward."

Creating "over our head" conditions is a way of making education about relationships, necessary dialogue, and connections. If all we need to know is facts and dates, if all we need to do is follow a pre-written script, that requires nothing. We need not panic, we need not toss and turn with worry, we need not do much of anything at all. But if we try to do something we each cannot do alone, we will find that we are reaching to one another to do it.

This type of schooling practice will challenge understandings of what it means to be "the teacher." No longer can we remain merely "the answer givers." To engage in something real, it requires letting go of those kinds of comforting controls. While we can be empowered to attempt these kinds of innovations, we must also be honest about the fact that none of this is easy. My cooperating partner said it well when he said, "[W]hat I've discovered that I can communicate is that projects are hard. And the reason why we're trying to accomplish them is because we're trying to do something great. We're not trying to...make education seem like it's all candy and puppies and stuff."

I could leave you with lesson plans, and I can certainly equip you with surveys, but I can leave you with nothing more critical than the admonition that doing something real will never come easy. When we grapple with the ineffable, with individual and communal experience, we need to let one another know that this will always be a difficult thing to do. Nevertheless, it will always be enormously worthwhile. Students confront what it means to work around deadlines, personality quirks, and frustrations. They have an opportunity to work through real challenges in order to achieve real accomplishments. Most importantly, they experience what it feels like to invest yourself into something larger than your individuality, and participate in the miracle of creation.

Not only will our students benefit from doing real work together, but so will teachers. Administrators spend a lot of time and energy talking about professional development, but I would argue that if you want professionals to actually develop, give them time and space to accomplish something together. Not only do I believe that students learn best through doing, but so do teachers. Our current paradigm of education does not allow for teachers to do much more than meet together, but I believe if we want to see something innovation happen in education, we should have more teachers working with one another in the classrooms.

In *The End of Education*, Neil Postman encourages a shift in education towards meaningful work. He writes, "...at its best, schooling can be about how to make a life, which is quite different from how to make a living." Postman goes on to quote Henry David Thoreau in Walden, saying "(S)tudents should not play life, or study it merely,

while the community supports them at this expensive game, but earnestly live it from beginning to end. How could youths better learn to live than by at once trying the experiment of living?" (Postman, 94).

As students and teachers engaged together in meaningful work, we all came to new perspectives that challenged us uniquely. With a unit study or a class activity, teachers calculate the learning outcomes, but with an authentic project, the outcome becomes unpredictable, just like real life. Students learned a lot about Humanities and Multmedia, including how to write scripts, develop characters, research and annotate sources, draw comics, draft pages, ink their illustrations, and digitally edit their artwork. But in their reflections, students comment on much more than these content standards and skills. Some students took away lessons on judging others based on prejudices, while others learned the difficult task of trusting someone else to contribute to a collaborative effort. We all learned things that we could never have predicted we would have learned, and this is because we all dared to engage in something real.

Provide structures for success

While the outcomes of our learning was unpredictable, we structured the project to arrive at a predictable and consistent product. As we engaged with the students in professional work, we also asked them to go through professional processes. Patrick and I carefully scaffolded the project to allow time for multiple drafts and numerous checkpoints for formative assessment from a variety of different voices. All of their work took place within the context of a real world audience (e.g. Comic-Con), which also provided the students with authentic incentive to move through the arduous process of creating a professional product.

We began our project with one and a half weeks of topic exploration. We asked students to create posters about a learning difference of their choice to educate the class about the variety of topics that they could focus on in their comic scripts. After the presentations, we created groups based on their interests for the topic of their scripts. The students wrote their scripts in two weeks, with a new draft of the script due each day. Students created between 6-9 drafts of their scripts. The students worked on their

artwork for three weeks, and each student completed multi-view character sketches of each of their main characters, and created between 7-9 drafts of their artwork.

Students experienced multiple levels of review. We asked the students to regulary participate in peer critique and respond to specific questions that focused on one or two major areas for improvement. At the end of the script writing process, students submitted their scripts to experts for sensitivity review, and then made edits to their dialogue based on the feedback they received. Patrick assigned each group a Graphic Novel Project student mentor. Periodically, students submitted their artwork to their mentor, along with specific questions to elicit specific feedback. Each aspect of the project was carefully scaffolded with common checkpoints to ensure that every student completed their project to a professional standard.

The dream of displaying work at Comic-Con provided a strong incentive for many students as they moved through so many drafts of their work. At the end of the project, students felt accomplished both because of how hard they had worked to complete their comic, and also because they saw the destination for their stories. Many students reflected on this achievement, and commented that they felt privileged to have the opportunity to create work of value.

Reimagine conflict and cooperation in the classroom to foster authentic community

Another consequence of working together to accomplish something is that it can lead to the development of an authentic community of learners. Throughout the course of this study, I witnessed the dialogues evolve and move in a pattern that reflected Isaacs' understanding of the "Fields of Conversation." Students began in a place of not-knowing, and then moved towards antagonism and otherizing, then to reflection and finally, to collective creation. This evolution of dialogue and working together requires teachers to deepen their understandings of what it means to talk together. We need to re-imagine what a classroom looks and feels like, if students are to truly benefit from authentic dialogues and genuinely connecting with one another through working together.

Teachers can tend to want to stifle "off-task" conversations that often happen in the first field of dialogue, without recognizing that the relationships formed through "offtask" conversations critically support the development of understandings that lead to reflection and creation. Similarly, teachers may want to intervene in conflicts or arguments. We fear the pain and suffering of students genuinely getting into conflict with one another, and yet, if we can support them in the pain, they may be able to move through it and into the subsequent fields.

In classroom dialogues, everything belongs. All stages are useful. Isaacs reminds, "It can seem promising that one space [of dialogue] may be more enlightened, more attractive, than another, though this is in practice not true. Each space is essential.... [I]t is the sustaining of the movement through the spaces that is important here" (Isaacs, 262).

If the dialogues are to be meaningful to the people involved, there is no way to force or guide students or teachers through the evolution. "Particularly for actionoriented people, it is quite frustrating to realize that we simply cannot make dialogue happen" (Isaacs, 262). Nevertheless, we can seek to cultivate conditions for dialogues to emerge naturally, and for people to feel safe to move through the different crisis points. Isaacs discusses the importance of leaders of dialogue as being "convenors," or people who help other people come together. The energies of listening, respect, voice, and suspension must be actively encouraged and practiced (Isaacs, 291).

My classroom of students struggled with the rules for communication, and I established many different structures to help them understand and practice communication to enhance student voice in the classroom. I introduced various protocols, enforced times of silence for individual thought and preparation, and had students utilizing technological mediums to communicate. However, I never equated their communication with one another as a part of their final grade. Instead, the design of the project helped to focus their attention on the value of what we were trying to accomplish together. The function of our exhibition was critical, because students felt privileged to take part in an opportunity together. The project was too large to accomplish individually, and they needed each other not only for support, but also for help along the way.

As we attempted to do something together, relationships deepened and our community developed. I feel like Lolita said it best when she described what happened on our "stay-late" day, where all of the students stayed until 7:00PM to finish their pages for the project. She recollected, "[W]e all connected somehow and we really pulled through and we got it done last minute but we still got it done. And I felt like we accomplished something and it was like a breath of relief, and I felt like for once, we came together kind of like almost like a family. It was really sweet."

Initiate a focus on social and emotional development

Finally, education must continue to move towards the social and emotional needs of our students. This shift is already taking place in other countries in the world, such as Australia and South Africa. To put it simply, social and emotional learning (SEL) focuses on the development of the "capacity to recognize and manage emotions, solve problems effectively, and establish positive relationships with others" (Zins and Elias, 2006).

The United States seems to have a preoccupation with standardized tests, things that can be charted and graphed, with things that can easily be answered on a ScanTron. However, while the national dropout rate remains at 30%, and in large cities increases to 50%, it is imperative that we think critically about what is being taught and learned in our school systems.

As our society becomes faced with increasingly more complicated problems, such as violence in school, teenage pregnancies, gang activity, suicide, and bullying, researchers are looking for solutions, and are finding that they may be related to addressing more than the intellectual needs of our students. Joseph E. Zin and Maurice J. Elias make a strong case for SEL in *Children's* Needs. They cite the research of Wang, Haertel, and Walberg (1997), who "examined 28 categories of influences on learning, which they based on reviews of 179 handbook chapters, 91 research syntheses, and surveys of 61 national experts. Wang et al. found that 8 of the 11 most influential categories involved social and emotional factors (e.g., student-teacher social interactions, classroom climate, and peer group)" (Zins and Elias, 2006).

In a climate of content standards and multiple-choice tests, it can be tempting to see the academic facts as all that matter within the classroom. However, John Dewey writes, and I agree, that "[w]hen treating it as a business of this sort tends to preclude the social sense which comes from sharing in an activity of common concern and value, the effort at isolated intellectual learning contradicts its own aim. We may secure motor activity and sensory excitation by keeping an individual by himself, but we cannot thereby get him to understand the meaning which things have in the life of which he is a part. We may secure technical specialized ability in Alegbra, Latin, or botany, but not the kind of intelligence which directs ability to useful ends" (Dewey, 39) [emphasis added].

The richness of our learning throughout this project reflects our deep need to create meaning and community jointly. Students learned about a critical civil rights issue facing the United States today, and they became far more adept at using technology to create art, and they even strengthened their skills as creative writers, but largely what they took away from the project was the accomplishment that came from working with others in a group.

But none of this came easily. As my study demonstrates, even when adults come into spaces of working together, they are confronted with deep, psychological pains and anxieties. Working with another human being is vulnerable, and we must anticipate those pains and help students move through them, even as we move through those difficulties, too. In SEL, five key competencies are practiced, which include: Selfawareness, social awareness, responsibile decision-making, self-management, and relationship skills (Zins and Elias, 2006).

In this project, students were asked to continually reflect on themselves as cooperative learners, and were given multiple entry points to understand themselves as learners and as people. This common language helped students understand their differences, and reflect on their pain in a way that allowed them to move forward with their groups, rather than stay in the field of disagreement and conflict. If we are asking students to do real things with real people, it is not enough to say, "Here's your project! Go!" and then expect them to figure it out, because their grades depend on it. They need to be carefully supported along the way, both socially and emotionally.

In cooperative learning, as teachers, we must also anticipate the reality of conflict. Conflict is a natural thing, and occurs whenever two perspectives cross paths. Naturally, we speak and act out of our own understandings and experiences, and it is rare that those completely align. Especially when both actors really care about the outcomes, they will be driven into conflict situations. While this can be scary to navigate, and even scarier to manage, we should pursue conflict resolution, not conflict prevention or denial.

The pedagogies that gave rise to project-based learning naturally lend themselves to SEL, but all classrooms can benefit from placing more of an emphasis on the other competencies that help foster critical, balanced minds in our young citizens. Strong correlations have been found between academic success and social-emotional health. SEL programming yielded an average gain on achievement test scores of 11 to 17 percentile points (Payton et. al., 16).² PBL classrooms that focus on cooperation and group work must not neglect the difficult process of helping students develop awareness of themselves, their emotions, their personalities and tendencies, and the skills of how to engage with others in doing real work. An emphasis on SEL in the classroom will not only enhance the project or academic outcomes, but it will go a long way in helping the longterm life outcomes for both our students and ourselves.

Project-based learning can provide significant learning opportunities for our schools today, especially as our educational climate evolve towards 21st century learning. In this era, we cannot merely ask students to learn content, but to also learn new ways to utilize content in meaningful ways. The implications presented here do not operate in isolation: real work necessitates real structures, both with clear directives to the product and with attention to social and emotional needs. Finally, as we ask our students to move in new directions with their learning, we also must move in this direction with a willingness to engage in interdisciplinary relationships with our colleagues. Collaborative projects provide a powerful reminder that we learn best as we learn together - teacher-with-student, student-with-student, and teacher-withteacher.

Reflection

I am a Humanities teacher because I am passionate about voice. We could probably trace back this passion to when I was just two years old, first discovering my own stories and sentences structures, but if we go that far back, we don't have any time for details.

So let's go back to age 13, which is when I began my long and transformational journey into academic debate and public speaking. At that time, I was the quietest girl from whom you'd never gotten a response. I began debating because someone said I should, and once I started, I never stopped. I became addicted to ideas, perspectives, and communication. The opportunity to speak and be heard changed me completely. I felt empowered. I felt like I had something to say.

Fast-forward to my first year as a teacher at High Tech High Chula Vista. I walked into my classroom with many philosophies, lesson plans, and projects, but with a singular conviction, which I literally wrote on my white board: "You have something to say: So say it!" That first year was led with unbridled conviction. I sought to bring every opportunity to my students to speak their minds, their feelings, and their crazy experiences. That first year was loud.

I quickly learned that having the courage to speak was not enough for a learning community. As a classroom, we also needed become an audience that would be willing to listen. In my reflections from that first year, my fiercest wondering was born: "How do we speak and feel heard?"

So my research question has been with me for my entire life. I have wondered this as it applies to friends and family, the classroom, the copy room, the staff meeting, and the world at large. When I began drafting my action research project proposal in March 2010, I wanted to ask this question to everyone! I especially wanted to ask this question to my staff. Back then, my question was, "How can we cultivate an environment where every member of our teaching community feels heard?"

With my characteristic "unbridled conviction," I developed a project to examine how teachers speak and feel heard within our professional learning communities. I wanted to stretch myself to communicate more with my colleagues, to understand

how they felt, and to discover how to develop a stronger professional community. As I started down this path, I began to understand regretfully that there was no way that I, as a full-time teacher, could hope to investigate the thoughts and feelings of my entire staff. I simply didn't have the time, nor the authority.

So I took my question back to my classroom. I changed it to reflect my and the students' experiences working together in projects, which is a significant driving force in the curriculum at HTHCV. I supposed that project design in many ways goes back to our dialogues, and so I wanted to understand, "How do we experience working together in projects?"

In the past several years of my teaching career, I had already done a lot of work with my Math/Physics teaching partner to explore students' self and social awareness. Initially, I was disappointed that my research project could not be "something new," but that feeling changed when I met the Tootie Frooties.

From the very beginning, they were a different kind of classroom. They challenged me with their consistently negative attitudes, noisy chatter, and apparent disregard for one another's feelings. My original question felt relevant amongst them: How can we, myself and each student in this class, speak and feel heard? When I began the project, I thought I knew. I at least thought I knew where to begin. But the Tootie Frooties brought me back to square one.

For the first several months of my action research project, I felt absolutely baffled. My graduate advisor reminded me that everything was useful here. Their negative attitudes and chatter was a part of my findings. He reassured me that the action research project is one that changes when you meet your students, and that I wasn't doing this "wrong" even though I wasn't finding any obvious answers.

Instead of leading with surveys about cooperation, speaking, or feeling heard, my data collection began when I started to investigate the backgrounds and histories of each individual in my classroom. I realized much later that this is a necessary part what it means to "work together" in the classroom. While it doesn't always happen first, building relationships is a critical component of how we can speak to one another and feel heard.

In October, I contacted Patrick Yurick, our multimedia teacher, and asked him if he would be interested in collaborating with my team of students, and with me in my graduate research. Although I could not work with all of my colleagues in my graduate research, I still wanted the opportunity to challenge myself to collaborate, even as I was asking my students to do the same thing with one another. From these conversations, the Comic Book Project emerged and we began our project with the students in November.

This project challenged me in many ways. First, I was consistently challenged to work with the Tootie Frooties. In written thesis, it may seem as though everything became magically possible once we started this project. In reality, the classroom continued to struggle to stay focused, to be kind, and to turn in their work on time. Patrick and I structured the Comic Book Project in such a way as to make every single person necessary to its success. This meant that we were forced to rely on one another, whether or not that even seemed possible. And mostly, it didn't.

As a teacher researcher, I was frustrated because my powers of observations could not work in this classroom. I wanted to be able to document moments of collaboration happening amongst the different groups, but the noise level in the room meant that I could rarely seem to see the magic happen. It was like trying to isolate a single piece of debris in a hurricane. Everything moved too quickly, too noisily, for me to focus on any one thing. Some days, I left class feeling less like a researcher, and more like volume control.

Instead of moments I could not capture through mere observation, my research focused on the student experiences and recollections of the project. I asked students to "document-as-you-go," using audio recording software. I also had the privilege of interviewing eight different students. They shared with me their unique situations, their perspectives and experiences, and I practiced listening. Some of the situations that they described I vaguely remembered, but I never saw as much as they did. In this manner, my students became my co-investigators.

The second huge challenge I faced was learning how to work with a new colleague. Patrick and I both have many strengths as teachers, but we also have drastically different worldviews and teaching perspectives. Patrick tends to be much more practical than I am, and works by focusing on the logistical parameters of the project. I, on the other hand, tend to focus on values and ideas about projects, and prefer to grapple with reality later. This difference in perspective led to many different conflicts and misunderstandings.

I was also challenged to have to rely on Patrick constantly for his expertise on art instruction and comic book making. Typically, I like to have my week at least sketched out before it begins. I like to be an expert myself on the thing that I am teaching. In this project, I had to trust Patrick. Patrick, similarly, had to let go of perfection because teaching with me meant that things would change and be different than how he would have done them himself.

Even though my thesis centered a lot on my own experiences working with my colleague, I did not realize that my project would examine so many different facets of cooperation until nearly February. When I began, I thought I was only researching my students and their experience, but when I got going, I understood that it was about so much more. The "we" in my question referred to us all: teacher-to-student, teacher-toteacher, and student-to-student.

I learned that everyone experiences collaboration in the same way. Working with other people can be incredibly vulnerable, but it can also be incredibly worthwhile. I found only similarities in the way that teachers and students experience collaboration, and I appreciated being able to empathize with my students along the way. I loved opportunities where I could counsel them and say, "You know, the same thing happened to me this afternoon, and it was really hard. But I think that it's important to experience this. We need to know how to work with others, and how to share our feelings."

It's hard to explain how working with another person impacts your life, because influence is a hard thing to track. For example, since beginning this project, I have become more accepting of myself, my insecurities, my emotions, and conflict in general. I learned how to alter my classroom environment to support my specific group of students. Was it all for the one thing? Of course not. But some things, like the sticker chart that Patrick developed for his classroom, have been directly stolen and now help me with my own teaching practice.

Through working with Patrick, I also learned some valuable things that I have to offer as a teacher, and it was partially through Patrick's observations of working with me. One of my favorite moments in my action research project was interviewing Patrick and asking him what he learned about me. He responded, "I learned that you are incredibly passionate about teaching things that can't be taught through the completion of any one thing." He went on to talk about how I value the students, and try to support them by getting to know them, and helping them manage themselves. I realized that, in fact, this is one of the greatest things that I can give as a teacher. My graduate advisor called it "a dialogical persistence." Even though I sometimes doubt the other things I do in the classroom, I have learned to recognize and value my ability to persist with "the ineffable" qualities that make up our human experience. This year, after conducting my research, I understand myself as a professional differently.

With that thought in mind, I have since become passionate about a new educational catchphrase: social and emotional learning (SEL). In my Conclusions, I discuss the direction I hope our society will move towards in the next few years. We need to recognize that content knowledge is only as important as the person who is learning it. I believe that we must be vigilant to support our students not only in their academic learning, but in their growth as individuals.

In the summer of 2011, I am excited about the opportunity to learn more about SEL as I travel to South Africa to collaborate with the LEAP schools as a Teach With Africa fellow. Students at the LEAP schools take a class every day entitled "Life Orientation" where they discuss interviewing skills, health and sex information, and how to deal with other tough life issues. Through these classes, they are empowered to become change-makers in their own lives, regardless of their past situation. The question posed is: "This is my situation, so what is my choice?" I hope to learn more about how South Africans practice Life Orientation in the classroom and find ways to bring back this type of schooling to the United States.

I am also excited about more opportunities to collaborate with other teachers, organizations, and even countries. Once I began working with others, I saw how it changes things. It's challenging, yes, but it's worth the struggle. In this school year alone, I had the opportunity to work with the AjA Project from the University of San Diego, the

Multimedia Teacher, the Math/Physics teacher, and a Humanities teacher at High Tech High Media Arts. Every time I work with someone new, I change as a teacher, and I know that I am also able to contribute to what is being created in the universe of things.

My project became immensely personal as I became a part of what I was researching, but looking back, I wouldn't have and couldn't have done it any other way. I hope that reading my action research project inspires other teachers to understand, as I am learning to understand, that we do not have to be perfect. It's OK to do things that we don't know how to do. It's OK to model mistakes to our students. It's OK to try. Isn't that how we learn? Isn't that what this is all about?

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Appendix A

Student/Teacher Reflection: Cooperative Moments

Cooperative Moments

A "cooperative moment" is a time when you and another person (or persons) come together with your different perspectives, and create new perspectives. Sometimes the moments are beneficial when everyone is cooperating effectively, but sometimes we don't see eye-to-eye and this can feel more like an argument! Whether good or bad, we are asking you to document it!

Cooperative moments can occur at any time in your life – at home, at school, or even when you're just hanging out with friends.

Requirements:

- 1. RECORD: Record 3 Cooperative Moments from today until December 17 (when we go to Winter Break).
- 2. SAVE: Save each Cooperative Moment as an MP3 (refer to Mr. Yurick's instructional video for this) and save in the Student Share in the Team Vista folder as your name and the number it is.
- 3. PUBLISH: At the end of this project (January), you will publish 1 or more of your cooperative moments on your DP and/or Journey blog.

THE QUESTIONS:

- 1) What was the situation for your cooperative moment?
- 2) What were you thinking?
- 3) What did you do?
- 4) In your perspective, what was the outcome?
- 5) If you could do this moment again, what would you do differently?

Appendix B

Writing Prompts

- 1. Write about a time when you learned something.
- 2. Write about a time when you felt your rights were taken away or not valued.
- 3. What is one of your triggers* when working in a group?
- 4. The Power of Words

Part 1: BRAINSTORM

Think back over your childhood and now young adult years. Has anyone ever said something to you or something about you that really affected you? Maybe it was something kind or something really mean. Maybe it made you happy, or maybe it made you feel hurt? Make a list of 3 or more situations.

Part 2: WRITE

Now look back over your list. Pick one situation that you want to write about in more detail. You may write about what happened, or how it affected you. Include all the details you can remember.

5. Being Different

Think about who you are and what makes you "you." Think about your appearance, your talents, your interests, or your culture.

Now, write about a time when you felt that who you were was different from many people. What made you different? How did it make you feel to be "the odd one out"? What did you think or do as a result? What did the other people do or say to you?

Write as naturally as possible, telling all you can about the specific situation or feeling. Don't worry about spelling or grammar for now. Just write what you remember.

^{*}A trigger is a behavior, generally done by someone else, that "sets you off" or "shuts you down," such as negativity, group members leaving your group to talk with friends, or being told that your idea isn't any good.

Appendix C

Triarchic Theory of Intelligences - Robert Sternberg

Mark	each	sentence	T	if	vou	like	to	do	the	activ	/itv

2. Designing new things

1. Analyzing characters when I'm reading or listening to a story

3. Taking things apart and fixing the	hem				
4. Comparing and contrasting point					
5. Coming up with ideas					
6. Learning through hands-on activ	vities				
7. Criticizing my own and other ki					
8. Using my imagination					
9. Putting into practice things I lea	rned				
10. Thinking clearly and analytical					
11. Thinking of alternative solution					
12. Working with people in teams					
13. Solving logical problems					
14. Noticing things others often ig	nore				
15. Resolving conflicts					
16. Evaluating my own and other's	s points of view				
17. Thinking in pictures and image					
18. Advising friends on their probl	ems				
19. Explaining difficult ideas or pr	oblems to others				
20. Supposing things were differer	nt				
21. Convincing someone to do son	nething				
22. Making inferences and deriving	22. Making inferences and deriving conclusions				
23. Drawing					
24. Learning by interacting with others					
25. Sorting and classifying					
26. Inventing new words, games, approaches					
27. Applying my knowledge					
28. Using graphic organizers or im	ages to organize your thoughts				
29. Composing					
30. Adapting to new situations					
Transfer your answers from the survey your dominant intelligence.	to the key. The column with the most	"True" responses is			
Analytical	Creative	Practical			
1	2	3			
4	5	6			
7	8	9			
10	11	12			
13	14	15			
16	17	18			
19	20	21			
22	23	24			
25	26	27			
28	29	30			
Total Number of True:		.			
Analytical	Creative	Practical			

Appendix D

The Cooperation Survey

reflec want Your	tion to ch user it thi	tans, as you prepare for your PoL, take this survey as a mid-year about cooperation, and how you work with others. Consider, what do I hange or improve for the second semester of Freshman Year? Iname (@hightechhigh.org) will be recorded when you s form.
I feel	like	my stretch in cooperation is *Select all of the answers that apply.
		Listening to others
		Being mindful
		Staying on task
		Staying with my group
		Speaking up
		Letting others help
		Taking charge of the group
		Making helpful contributions
		Respecting other people's perspectives
I feel		my strength in cooperation is *Select all of the answers that apply.
		Listening to others
		Being mindful
		Staying on task
		Staying with my group
		Speaking up
		Letting others help
		Taking charge of the group
		Making helpful contributions
		Respecting other people's perspectives

I feel like following	I have grown in the habit of cooperation *Select one from the options.
	A lot
0	A little
C	I haven't grown in this habit.
When tall following	king with my group, my favorite "structure" is: *Select one from the options. Protocols introduced by the teacher Taking turns Using a "talking" stick Using Google Docs or Google Chat No structure
	ofortable working with my classmates in small groups. *Select one from ring options. Strongly agree Somewhat agree Somewhat disagree Strongly disagree Other:
	rd when I work with my classmates in small groups. *Select one from ring options. Strongly agree Somewhat agree Somewhat disagree Strongly disagree Option 5 Other:

group.	*Select one from the following options.
	C Always
	Often
	Sometimes
	Never
	ike I have opportunities to say what I want to say in my Humanities *Select one from the following options. Always Often Sometimes Never

I feel like I have opportunities to say what I want to say in my small

Any other questions, comments or qualifiers? Write anything else you want to say about cooperation or working with others in this class.

Appendix E

Script-Writing Protocol

Script Requirements:

- The Comic is clearly a learning tool that will help students and teachers understand the designated topic
- There are 3-4 characters in the story
- Character has specific strengths
- The character confronts a challenge
- The story is set in a school
- All aspects of the comic are based in some kind of research
- 1 comic page per member of group
 - 5 panels on each page
 - No more than 4 sentences per panel
 - Minimum of one word per panel (Exceptions made by teacher)
 - All aspects of the story are rooted in some kind of research
- Title Page
 - Story Description Example
 - Cast Bios (2-3 sentences each) Example
 - 3 Character Minimum, 4 Character Max
- Info page
 - o TBD

Protocol:

GETTING IDEAS FOR STORYLINE

- 1. Brainstorm/write
- 2. Present
- 3. Questions
- 4. Decision
- Facilitator:
 - **1. Brainstorm: SAY:** We are working on a comic about _ subject. Before we can beging writing our comic together we need to start with brainstorming ideas. Brainstorming means that any idea is good and might have a "gem" within it that we need to "mine" for our final draft. Please take the next 3 minutes to write down ideas you might have for the story line. Please keep in mind the requirements of the story listed above.
 - Give 3 minutes to write. Facilitator writes as well.
- Facilitator:
 - **2. Present: SAY:** At this time each person has 30 seconds to discuss their idea. Please take notes during this time. Questions will occur after all

- members have explained their ideas. Please write down questions you have for the presentor while they are presenting.
- Facilitator gives each member 30 seconds each to explain ideas starting with person 1. The only person talking during this time should be the person who is sharing. No questions can be asked between sharing.

Facilitator:

- 3. Clarify: SAY: At this time we can ask clarifying questions to each member that has shared starting with person 1. We have 2 minutes to complete this task. Please be Kind & Specific with wording while asking questions.
- Facilitator makes sure the questions do not take longer than 2 minutes

Facilitator:

- o **4. Decision: SAY:** At this time, we are going to make a group decision for the first draft of our storyline. This might change completely in draft 2, but we need to agree on a few things before moving on to writing our comic.
- What are the plots that strike us? How might we combine some of our best ideas?

Who is our main character?					
What are 1-2 of his/her specific strengths?What is his/her struggle/challenge?					
					Who are our supporting characters?
What is the one-sentence version of what our comic is about?					

WRITING THE COMIC

Facilitator:

- Writing the Comic Panel by Panel: SAY: There are 5 panels on each page of the comic a ____ number of members in our group. We are going to be writing the comic one panel at a time. Group member #1 will be writing the first panel, group member two will be writing the second panel. We are going to write the first draft of the comic panel by panel until the comic is complete. Read the Example panel out loud:
 - Example of a panel:
 - Page 1
 - o Panel 1 It is a dark night. It is raining. We can see this from the inside of a house where a student is inside trying to concentrate on his homework. The student is Chad. He is looking out the window. He looks depressed.

- CHAD
- "Sigh..."

Panel By Panel Protocol:

- 15 Seconds of silence to think about ideas for panel
 - Group Member with designated panel discusses what he or she is thinking about for writing in that panel.
 - 1 minute for responses
 - These can be suggestions or questions. Make sure that all things said are Kind, Specific and Helpful
 - Limit group responses to 1 minute
 - Designated person whos turn it is makes the final decision about the panel.
 - Facilitator/Writer records in Celtx
 - Repeat until each page is complete
 - Save Celtx draft as "Draft 1" onto MY DP folder of the facilitator

Facilitator:

- **Concluding the Draft: SAY:** The current draft of our comic is now complete. We now need to discuss what we need to accomplish for the next draft. To do that we all need to review the draft together. I am going to read the script out loud please take notes about things that you think need fixing for the next draft.
- Facilitator reads current draft out loud

Facilitator:

- List of revisions for next draft: SAY: We are now going to generate a list of revisions which I, the Facilitator, will add to the Celtx document. We are looking to make sure that:
 - The Script is understandable to each member of the group
 - Finding areas where we need to do more research
 - There are 3-4 characters in the story
 - Character has specific strengths.
 - The character confronts a challenge
 - The Story is set in a school
 - The Comic is clearly a learning tool that will help students and teachers understand the designated topic
- Facilitator records changes in Celtx
 - In Celtx click:
 - Right hand side>Notes>Add note
- Facilitator saves Document
- Facilitator uploads document to their Google Docs and shares the file with each member of the group.

Appendix F

Character Design Protocol and Worksheet

1. DRAW all of your characters

2. PROTOCOL

(present/respond in the numerical order that your page appears in the comic. It would be helpful for students to sit in this configuration.)

A. PRESENT

Artist #1 shows & tells his/her distinguishing features for Character #1. (Define this when introducing protocol - our working def. was "Something you have that others don't have" for example, Hair, Eyes, Accessories, Clothes, Nose, etc.)

B. RESPOND

Take turns saying your favorite feature.

C. DECIDE

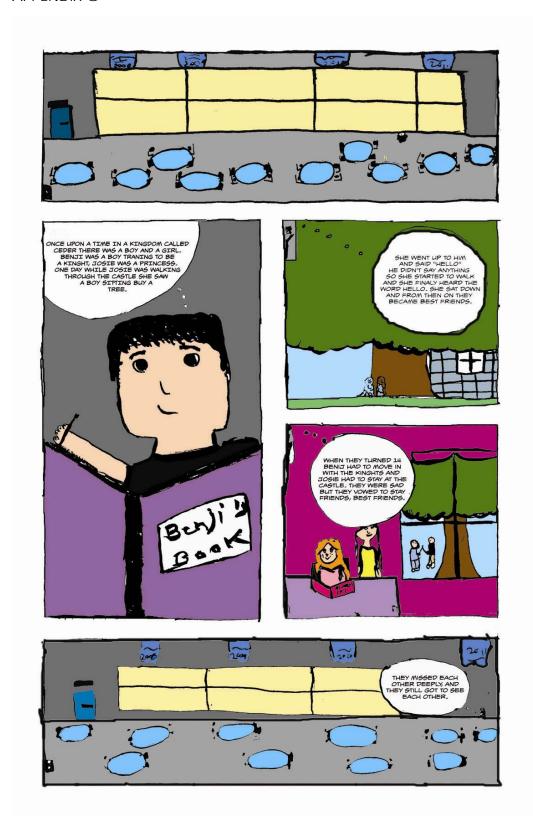
Artist #1 decides which of the distinguishing features s/he presented s/he would like to keep in the final character.

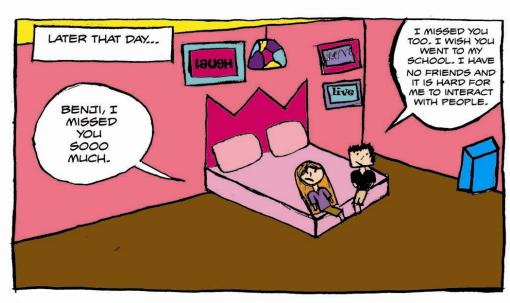
Repeat until each artist has presented the drawings and has decided on a distinguishing feature.

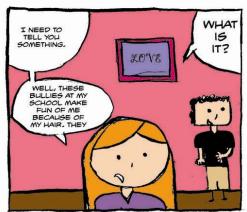
- * Each character must have 4-5 distinguishing features.
- * Each artist must contribute 1 feature to the final character design.

CHARACT	ER DESIGN WO	PKSHEET
Side View Left	Top View	Side View Right
Happy (Face)	Front View	(Choice)
Sad (Face)		(Choice)
Angry (Face)		(Choice)

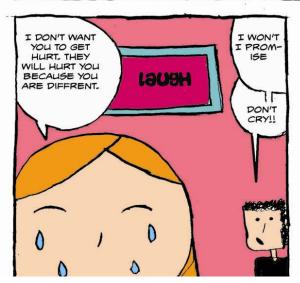
APPENDIX G

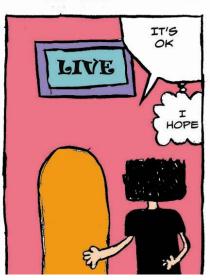




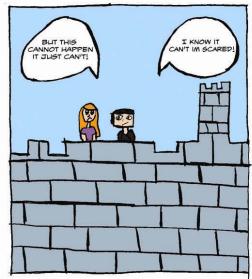




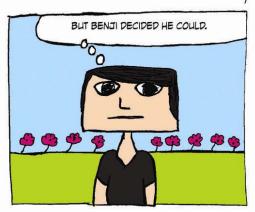


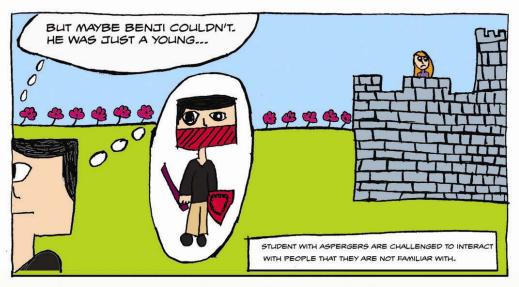






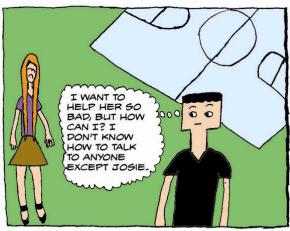


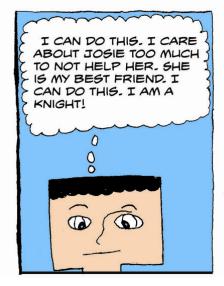


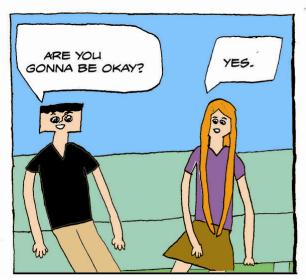


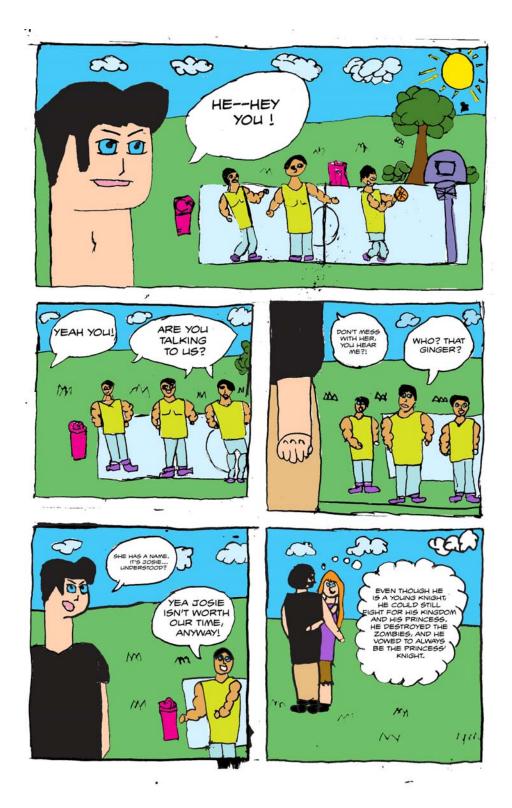












Endnotes

- 1. The "Tootie Frooties" is the student-selected name of the class that I involved in my research project. It was chosen by democratic means early in the school year.
- 2. For a comprehensive review of dozens of sources all affirming the correlation between SEL and academic achievement, reference the SEL and Academic Performance Research Brief (2003). http://casel.org/publications/sel-and- academic-performance-research-brief/