# Chapter Six: Findings and Actions

## Findings Part One: Looking at Differentiation Strategies and Data Analysis

Once I figured out what I wanted students to know, understand, and do with the Jungle Graveyard Project, I came up with seven specific differentiation strategies. My hope was that this would help to sharply focus my research during the course of the group portion of the project. I chose these seven strategies based on what I felt were weaknesses in my past experiences with project based learning.

## In the Beginning... Setting Students Up for Success

 • *Strategy #1: Assessment Through Graphic Organizers and Informal Class Discussion*
Since all differentiation springs from assessment, I used student designed anticipation guides to assess student understanding of story after reading Chapter One of *The Graveyard Book*. I wanted to see what the students already knew about the stories, and what they wanted to discover. I asked them to follow a basic format, but let them be as creative as possible when it came to the design of the graphic organizer. In the past, I have handed out graphic organizers for students to "fill in." For this project, I felt it was important for students to create the graphic organizer. I used it as an opportunity to begin a discussion about beautiful work.

Before assigning the anticipation guide, I did not mention beautiful work. I wanted to see what students would do with minimal guidance (see Appendix 7 for student work samples). I wasn't surprised to see that many students rushed through the design. There were a few that stood out, though. I used them as examples of beautiful work, and we came up with a class definition of what beautiful work meant to us. This is an example of the chart we created together:

| IN ROOM 2, BEAUTIFUL WORK IS: |
|---|
| • Work that you are proud of<br>• Work that you put time into<br>• Work that you are proud to share with others<br>• Work that includes a clear design (color, borders, neatness)<br>• Work that shows a point of view |

*Figure 6.1*

The discussion went really well, but I do think I missed an opportunity. I should have given students a chance to actually go and revise the work that they turned in. I think that I would have seen a huge improvement in the work, and it would have added to our thoughts about revision.

The anticipation guide did give me some data on what students already knew about both stories. I was particularly interested in what students knew about *The Jungle Book*. Not surprisingly, most responses about *The Jungle Book* were focused on the Disney movie, not the actual Rudyard Kipling story. From the anticipation guides, I knew that I would have to spend some time reading from *The Jungle Book.* I also showed an animated short film that was created based solely on the words of Rudyard Kipling. This helped students to see the differences in the Disney version and the actual version.

## Differentiating for Content

• *Strategy #2: Using Varied Text Levels and Videos*

In reading Rudyard Kipling's original text of *The Jungle Books*, I was struck by the challenging vocabulary. I knew that some students would not be able to access the meaning through the original text. I read aloud the original text to students, stopping every few minutes to do a "think aloud" around unfamiliar words. I provided students with copies of the "Junior Great" abridged version of *The Jungle Book* in our classroom library. I also had a picture book version and showed a video of an old cartoon that was adapted from the original text. This helped students of all ability levels to be able to access the story.

*• Strategy #3: Front Loading Information Through Read Alouds*

Read alouds were a powerful part of the content for this project. There is a special magic in reading aloud to kids-- even middle schoolers! In the past, read alouds have been a wonderful way for me to get kids hooked on stories and storytelling. Since I could not afford a class set of novels, I decided to use read aloud to front load information for students. This would mean sacrificing quite a bit of time, but the the stories are the heart of this project. Students responded strongly to the read alouds, particularly in the case of *The Graveyard Book*. They begged for me to keep reading at the end of class sessions. We used the stories to discuss literary vocabulary and plot structure. Once we were a few chapters into both stories, it was time to begin the group project.

## Differentiating for Learning Environment

*• Strategy #4: Sacred Learning Spaces*

Space was a huge issue during projects last year. We didn't have enough space, so students complained that it was too "packed" and "noisy." I have the same classroom this year, so my only choice was to utilize the facilities that we do have. The goal was to ensure that each team had a sufficient amount of space, but I also wanted the spaces to inspire students to work and learn. I came up with the idea of making different spaces in the classroom sacred learning spaces.

I introduced the concept of sacred learning spaces by opening up a discussion about where students do homework. Most students commented that they did homework in the same place everyday. I asked students why they chose the spaces they did for homework. This opened up an interesting dialogue about why we choose certain spaces to work and learn. We also discussed that the space that each group chose to work in during the Jungle Graveyard Project would be a sacred learning space. This meant that groups would always work in the same space, and the space would be a safe haven for creating new ideas. This added to the culture of respect during the project experience. It was also an easy way to check for clean up after project work. Each group was responsible for cleaning their space everyday. See Appendix 8 for a map of the sacred learning spaces during the Jungle Graveyard Project.

## Differentiating for Process

   • *Strategy #5: Grouping with Intelligence Types*

One of the first surveys that I gave students was the Sternberg Triarchic Intelligences survey. This survey asks students questions about how they learn best and groups them into three intelligence groups- analytical, practical, and creative. I first got the idea for the survey from my Inclusive Classrooms course. I was surprised to find that 53% (18 students) of my English class is Creative. 35% (12 students) are practical learners and just 12% (4) are analytical. I remembered back to the Inclusive Classrooms course and recalled a similar outcome for the adults in our class. I was one of only three analytical learners in the whole class. Most people fell into the creative and practical categories.
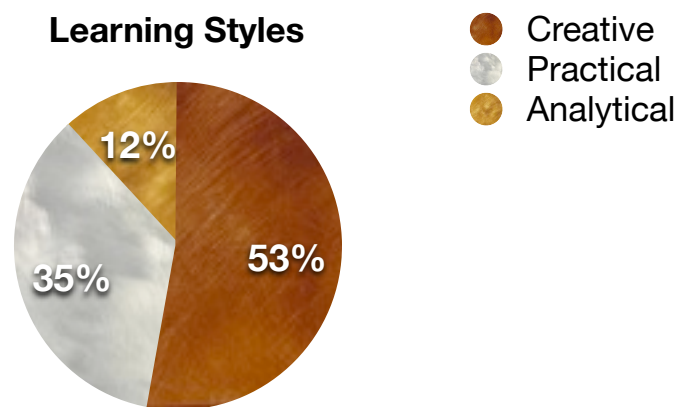


*Figure 6.2*

At first, I gave the Sternberg survey simply to get data about students. I thought that the information could help me when I planned the project. For example, if I had mostly creative learners, I might present the project in a different way or add a different element. When I showed my data to a study group, they suggested that I try to use the intelligence styles in grouping students. I was intrigued by this idea... What would really happen if students were placed in groups according to intelligence type? Would it backfire terribly or be a fabulous success? I decided to take a risk and try it. I thought that students might balk at the idea, but they were actually very receptive. I think they were really open to trying something new.

Below is a chunk from the transcript of the conversation where I introduced the idea of intelligence groups:

Teacher: I wanted to show you the results of the Learning Styles and Group Work survey we took the other day. The survey placed you in one of three intelligence groups liked we discussed the other day. I learned a lot about you from the survey. Here are the different kind of learners we have in class. (I posted a chart on the projector that had the intelligence groups. Once the chart was up, everyone started talking. They seemed excited. I told them a bit about each intelligence type, and then more conversation ensued).

Me: ... Are any of you surprised about where you landed?

Jon: I am. I don't think of myself as a very creative person. I don't want to be.

Me: Why not?

Jon: I just don't see myself that way. I think I fit in better with the practical learners. Can I be with them?

Me: Okay. I will move you over to that column if you really feel that way.

Bridget: And I'm more creative. I don't know why or how I would fit into the practical column based on what you told us. Can I move, too?

Me: Sure. Anyone else? No? Okay... The reason we spent so much time on this survey and discussion is that I want to try something new with the groups in the project we'll be doing. I have a hunch that the project may be more successful if you work in groups of people with your own intelligence style. That means creatives will work with other creatives, and so on. What do you guys think?

Jacob: I think that sounds like a good idea because we think the same and we might be able to come up with a better idea for the project.

Me: When I looked at the results from the other survey I gave you, you know the Learning Styles and Group Work survey? A lot of you commented that you had negative experiences in past group situations. My goal for the Jungle Graveyard project is for everyone to be successful, so I think that this way of grouping might help with that. What do you think?

Students seemed genuinely eager to try something new, and I began to feel like this type of grouping might be a wonderful step in the right direction. I also began to wish that I had decided to do my action research on intelligence type grouping during projects. However, when I really sat down to think about it, I became convinced that the idea of intelligence grouping was a differentiation strategy (and a powerful one at that) that fit into my research.

## What Students Had to Say About Working in Groups

In the *Learning Styles and Group Work Survey*, I got many varied student responses about group work. As the graph below shows, most students really like group projects. 22 out of 34 students (or 65%) ranked the statement, I don't like working in groups, as a 1 or 2. However, it was clear that some students had really been scarred by past group experiences. 26% of the class ranked the statement as a 3 or 4. That is more than a quarter of the class that would not be looking forward to group work.
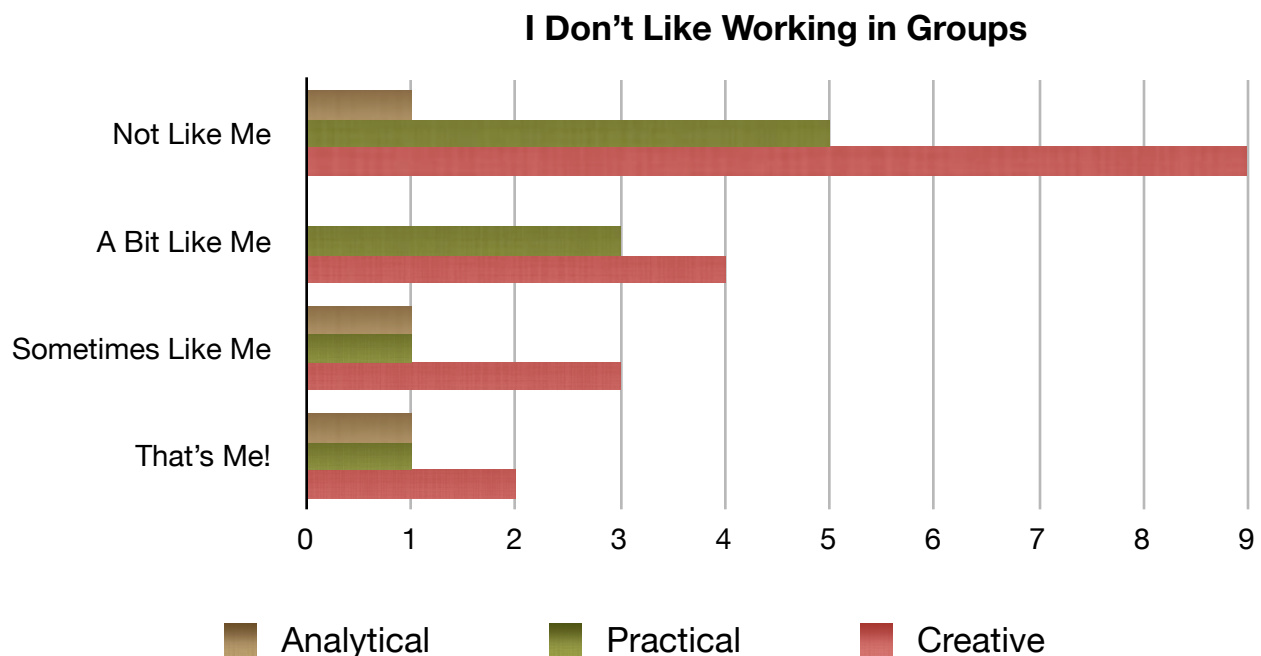
### I Don't Like Working in Groups

*Figure 6.3*

I looked further at the surveys to see if anyone had made comments about why they felt apprehensive about group work. Dana said, "I can work effectively in groups- I just prefer not to, especially when we can't agree on an idea. When you work independently, the only one who disagrees with you is you!" This comment is insightful. While group work can be difficult, it really does help students with life skills like discussion strategies and conflict management. The struggle is ultimately worth it.

Jacob commented, "I don't like working in groups with people who don't like me and do not let me right down things on the paper." Perhaps the most striking comment about group work came from Hattie. She said, "You should know that I don't really like working in groups because I usually get stuck with the people who don't want to work. People say I'm the 'nerd' so I should do all the work. I like working in partners that I get to choose because I will choose someone who will actually work."

I know that Jacob and Hattie's comments come from such a true place in their middle schooler hearts. Adolescence is a tough time, and group work can often magnify the differences between individuals. Was there a way for group work to become a positive experience for more students? I began the Jungle Graveyard project with the hope that students would change their minds about group work once they experienced intelligence style groups. For better or worse, intelligence style grouping was the single most powerful way that this project was differentiated.

 • *Strategy #6: Choice Guided by Work Samples*
Last year, the feedback I got from students was that while they enjoyed choosing their own projects, they wanted to see more examples and project models from successful students. This idea is supported by the research in Ron Berger's *Ethic of Excellence*. During a presentation last year at the HTH village, Mr. Berger noted that "beautiful work" samples are vital to student success with projects. Beautiful samples will lead to more effective projects.

• *Looking at the Data Around Work Samples*

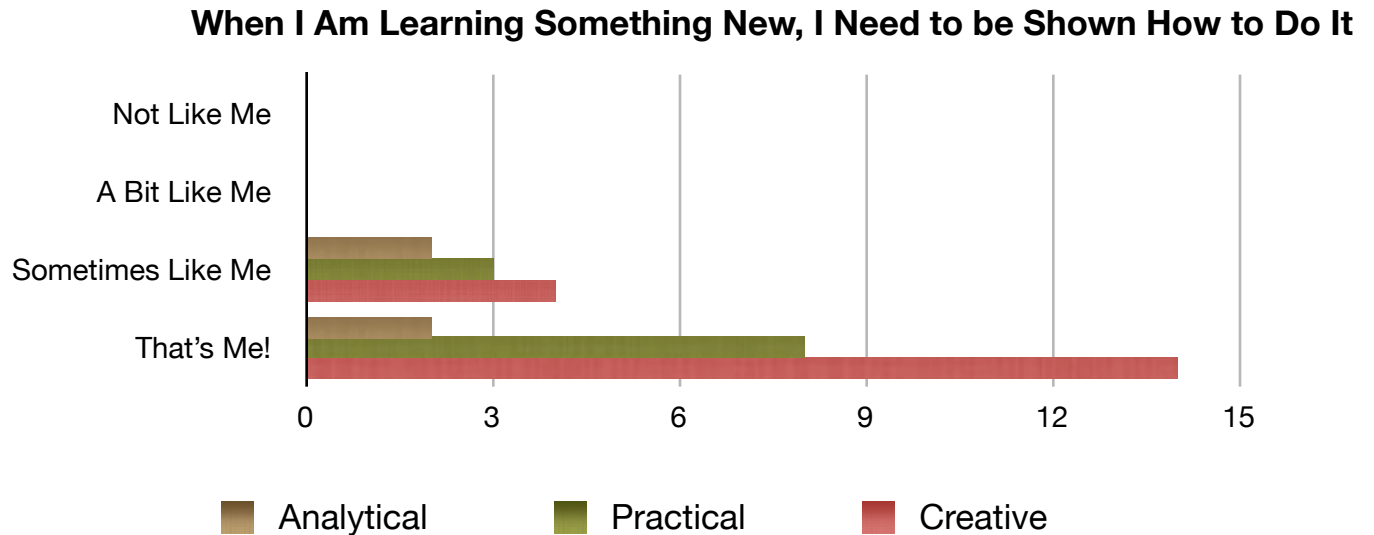**When I Am Learning Something New, I Need to be Shown How to Do It**



*Figure 6.4*

The results from the *Learning Styles and Group Work Survey* took me a bit by surprise, because my prediction was that at least some of the creative learners would not like to be shown directly how to do something. I thought maybe they would rather hear or see a little bit about what they needed to learn and create a path from there. However, 100% of the class chose either "Sometimes Like Me" or "That's Me!" in answer to the question, and a resounding 78% of the creative learners answered with a "That's Me!"

My next thought after looking at the data was, "Duh... Of course ALL students like to be shown how to do something before being expected to do it." Work samples give all students an idea of what the teacher is expecting and provide students with a stepping stone to "gain access to new knowledge, understanding, and skills'" (Tomlinson 2003, p. 68).

When noted PBL expert Ron Berger came to HTH to speak, he focused on the importance of showing students how to do projects through models. If students know what beautiful work looks like, they are more likely to succeed with a project.

The data from this survey question helped me to put my research results into practice. That's the beauty of action research. It has given me concrete ways to improve my teaching now, not next

year or five years from now, but right now. I learned to include work samples for every project

that my classes do, even mini projects. It seems so simple, but it has been revolutionary for me

(and my students). I can talk less about what I expect, and students know clearly what beautiful

work looks like (and what they need to live up to).

Here is an example of what you might find in my classroom now on a project work day (from a
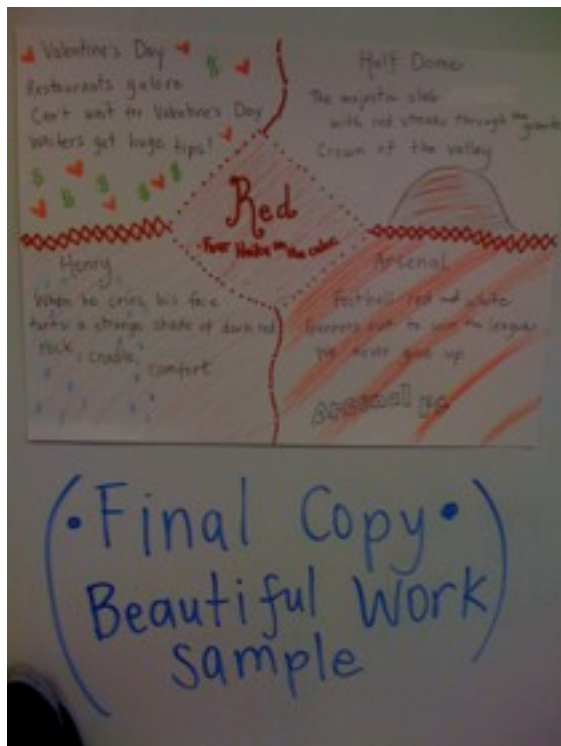
current Haiku mini-project):



| Figure 6.5 | Figure 6.6 |

During the Jungle Graveyard Project, showing work samples gave students that extra confidence

boost to choose or create innovative project ideas.

• *Strategy #7: Learning Contracts (a.k.a. "Project Proposal Letters")*

In the research around differentiation, I found many different types of learning contracts. Carol

Ann Tomlinson notes, "Contracts take many different forms and are used in a great range of

ways" (2003, p.149). I thought that learning contracts would be a powerful way to differentiate

this project.  I wanted the contract to include a "package of tasks, activities, meeting times with

the teacher, and other components likely to help the student continue to develop essential knowledge, understanding, and skills" (2003, p.149). I wanted all of these things, but I didn't want to create the contract myself. I thought that it would be much more powerful for students to create the contract themselves through a project proposal letter. It would include a timeline for the project and a description of the project idea (see Appendix 8). This way, when I did check-ins with groups, I knew where they wanted to be each day. I also knew the end goal for each project. This was a great tool for the groups to stay on track.

## Findings Part Two: Exploring the Intelligence Groups

When I set out on my action research journey, I tried to choose a topic that could be tied up neatly with a bow-- something that wouldn't cause too much of a stir. Well, I have found that life rarely gives you what you want. In the immortal words of the Rolling Stones, "You get what you need."

I learned that research, like life, isn't always strictly black and white. There are shades of gray. My action research truly took on a life of its own once intelligence grouping was added into the mix. I didn't think intelligence grouping would lead to controversy, but it sort of did. I ended up with somewhat messy results that left me questioning and second guessing myself at every turn. I learned so many positive things about my students through intelligence grouping, but there was a negative side, too. In most cases students lived up to the intelligence group labels, in negative and positive ways. If I am honest with myself, I admit that I-- perhaps subconsciously-- expected students to behave in a certain way based on their label.

In the following section, I provide a snapshot of each group during project work days. I also explore what differentiation strategies worked for each intelligence group, and what to improve for next time. There is also a reflection on the benefits and drawbacks of intelligence grouping.

### The Analytical Learners

*"I think and plan through every point of view." -Keree*

The Analytical Group at Work



*Figure 6.7*

# Analytical Group: The Picture Book

*"We were all pretty good friends in our group so we got along very well. We could talk as we were working on our project." -Tim*

**• A Snapshot of the Analytical Group at Work...**

At first, the analytical group was unclear about what the project idea would be. They thought through several options. Once they settled on a picture book, they began to split up the work. There was very little discussion. Once it was decided, they split the work up and did their own sections without much discourse. The trait of minimal need for discussion continued through out the project. In working with this group, there were several times when I would come along to check in, and they would be completely silent, all working on different sections. Other times, I would visit to check in, and they would be talking. The talking was almost always social talking, never really focused on the project. What I gathered from observations was that they had thought through all of the options for the picture book on that first day. Once the decisions were made, the need for discussion seemed obsolete. That was frustrating for me, because I wanted them to

discuss the story on a deeper level through out the project. I realized that they needed more scaffolding for discussion to occur on a daily basis.

On a more positive note, this group had very little conflict. When I asked on the End of Project Survey, What part of the project was easiest for you? What was challenging for you?, Tim replied, "We were all pretty good friends in our group so we got along very well. We could talk as we were working on our project." Tim, who sometimes struggles to stay on task during group work, felt successful in this group. From classroom observations, it was clear that they really supported each other to come up with a beautiful work product.
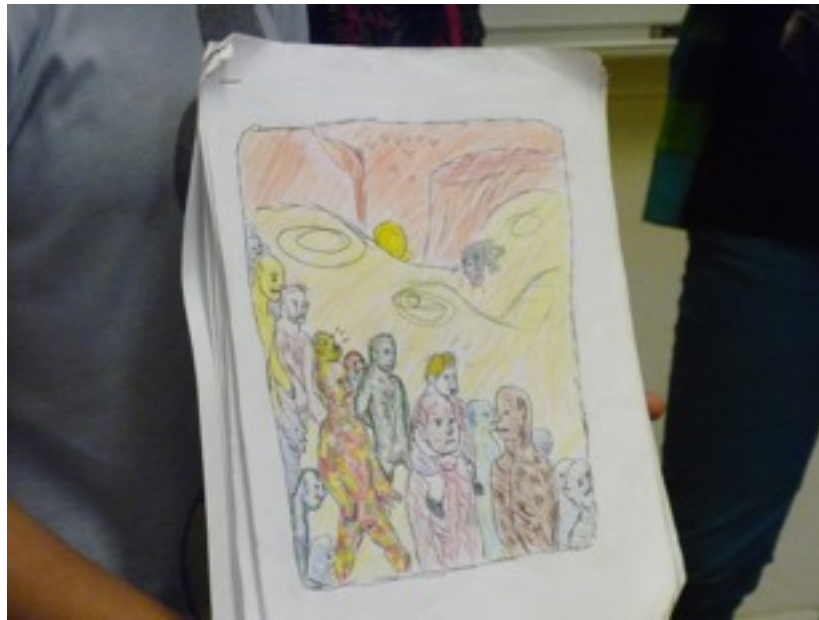
The Picture Book Product (Rough Draft)



*Figure 6.8*

## What Differentiation Strategies Worked for the Analytical Learners

The analytical learners had a positive experience with the intelligence grouping. On the End of Project Survey, two out of the four group members reported the grouping being the best part of the project. In this way, I think intelligence grouping really worked for analytical learners. Another strategy they liked was being able to do something artistic. On the End of Project Survey, Summer commented, "I enjoyed being able to draw and color the picture book." They

clearly liked being able to express themselves in an artistic way. In fact, every idea that they came up with for this project had an artistic component.

In the end, they chose to do a picture book of one of the chapters of *The Graveyard Book*, but their other idea was to write a journal from the prospective of a main character (creative writing). They seemed to thrive on artistic options like creative writing and drawing. Their final product included both drawing, coloring, and creative writing. They chose to show me through the pacing of the drawings that the chapter had a clear beginning, middle, and end.  They also wanted to show that they had a good  understanding of the characters and setting. I felt that they accomplished this task. The illustrations were well paced and covered all of the big ideas in the chapter.

**What to Improve for Next Time: "Do We Have to Discuss it?"**

I gave the aforementioned *Learning Styles and Group Work* survey about two weeks into the school year. At that point, I already knew that I had an articulate group of students in this English class. In my first survey, I discovered that 18 out of 34 students (or 53% of the class) were creative learners. In my past experience, I have observed  that creative learners really enjoy talking about their learning. The results here helped to back up that assumption. 83% of creative learners answered both questions with either a 3 (*Sometimes Like Me*) or 4 (*That's Me!*) ranking. In fact, most students in class (76% for the first question and  73% for the second) seemed to enjoy class discussion, in discussion groups or in general.

The surprising result came when looking at the analytical learners' responses. Half of them dislike discussion groups, while the other half really enjoy discussion groups. In the second question, however, 75% of the analytical learners responded with a 1 (*Not like me*) or 2 (*A bit like me*) ranking. When looking closely at individual survey results, I saw that the half who really enjoyed the discussion groups were the more social of the analytical learners. One of these learners, Tim, loves interacting with other students. His results showed that while he enjoys

being in discussion groups, he doesn't necessarily like to discuss ideas with other students. He likes to be with other kids, but his thought process happens internally.

From the survey results, and from general work observations, I concluded that discussion seemed to be a one time thing for the analytical group. They became so immersed in the "how" of the project that they seemed to forget the "why." As a result, project work days became more about the product and less about the journey. A daily guided discussion check in sheet from the teacher would really have helped this group to stay focused on the "why" of the project. This would also have helped them to stay on track with their learning contract.

## • The Practical Learners

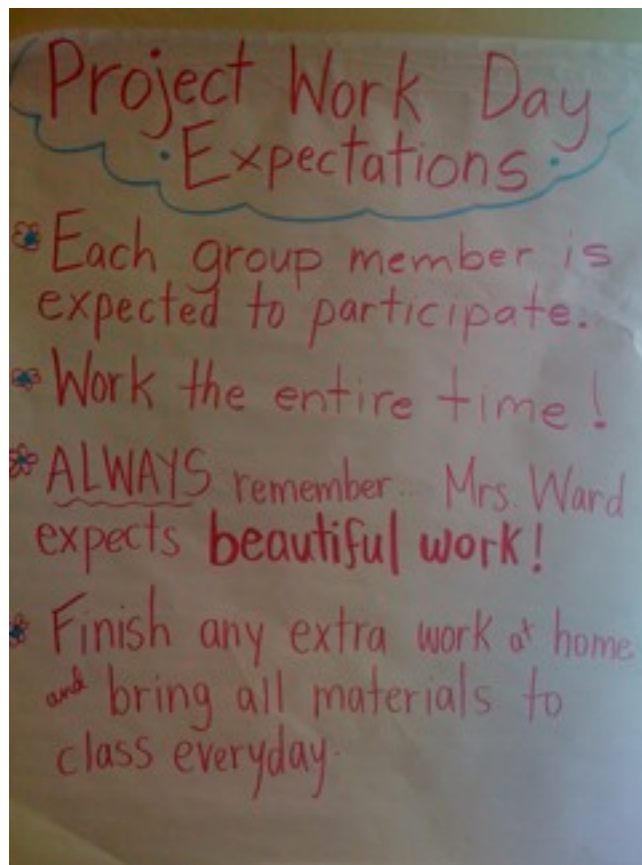*"On big projects, I usually procrastinate so I like to be reminded about the due date." -Nate*



*Figure 6.9*

# Practical Group #1: The Diorama

*"I liked the people I was with because they all were practical learners and I could relate." -Randy*

Practical Group #1 on project planning day



***Figure 6.10***

**• A Snapshot of Practical Group #1 at Work...**

Practical Group #1 was enthusiastic about building a diorama. They wanted to show me that they had a good understanding of the main setting for *The Graveyard Book*. A few days into the project, I heard, "Mrs. Ward! We're done!" I knew that they needed more time. The project was not even close to being done. The diorama project turned out to be a study in revision. A few days before the due date, I had a check in with the group. They had the structure built, but it was messy and incomplete. Students came to realize that it wasn't done. In fact, it was unfinished. I asked them, "What do you really want your finished product to look like? Do you want it to look polished? How can we make it look like a final project?"

We talked through what needed to be done, and group members created a checklist in addition to their learning contract. Students committed to working at home on the project on alternating days. They really pulled together and used revision to their benefit.

In the end, the project did accomplish what they set out to do, but I wish they could have somehow shown that setting is not simply a place, but also a time. The graveyard diorama is created to look like a night scene, but not all scenes in the book take place at night. They could have addressed this concern by adding a title plate to the front of the diorama with the time and year the story took place.

*"The part I enjoyed was seeing how the project really improved at the end." -Jon*

Below are a few pictures of the finished product.



*Figure 6.11*

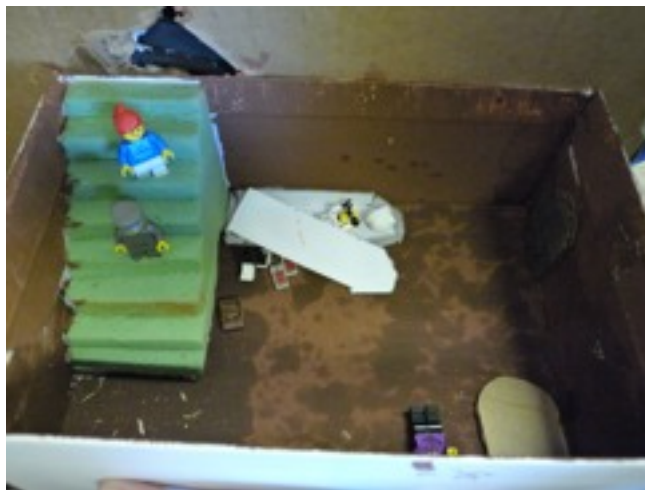*"I liked that all of us were a little bit alike and that we all did get along." - Amber*



*Figure 6.12*

# Practical Group #2: RAFT Letter

*"Everything was pretty easy, but thinking of what to write and what to do for our project was a little challenging." -Kendra*

Practical Group #2 on project planning day



***Figure 6.13***

**• A Snapshot of Practical Group #2 at Work...**

Based on classroom observations, it looked like Practical Group #2 was very focused and goal oriented. They wanted to finish their project early so that they could work on an extra credit assignment. The feedback I received from the End of Project Survey showed that the biggest struggle for this group was coming up with a project idea. Brandy said, *"The hardest part was deciding what to do."* Once they had an idea, the worked flowed smoothly. Brandy showed strong leadership skills in her group. The students just naturally gave her the role, which sometimes caused a challenge when she was absent. When I observed this group, I noted that they paid close attention to their learning contract. They needed this daily guide so that they knew what needed to be accomplished.

Practical Group #2 all agreed on a project idea, but it seemed that the passion was lacking. I really wanted them to be excited about what they chose to create. What I learned from the

feedback on the End of Project Survey was that it was more important for them to clearly understand the project and have guidelines than it was for them to be excited and inspired. The energy in the room was crackling from the other groups, and I think Practical Group #2 really tried to catch that energy.

If I had to do this project again, I would give this group three clear choices and have them pick one. That may have limited indecisiveness and helped them to feel more secure.

In the end, they decided to write a RAFT letter (see Appendix 10 for more ideas on how to complete a RAFT project). They wrote a letter from one character to another and put it in the form of a scroll. They made it look like a child wrote the letter, and it was very creative. It showed their understanding of characters and relationships in the story. They accomplished what they set out to do, I just wish they had been more excited about their work.

## What Differentiation Strategies Worked for Practical Learners

The strategies that worked well for practical learners included learning contracts and detailed charts that provided clear expectations. The practical groups relied heavily on the project proposal letter (aka "learning contract"). During class observations, I noticed that they looked at it during every work period. When they fell behind on the work timeline, they knew that they would have to catch up by taking work home.

The idea of sacred learning spaces also worked well for the practical learners. I noticed that when they were in their work spaces, they really stayed in their space. Some even became rather territorial over the work space. Going to the work space was sort of like a switch that brought them into work mode.

## What to Improve for Next Time: "Can You Just Tell Us What We Should Do?"

In looking at the data, I found a pattern in the practical intelligence group student responses to one question in particular. On the End of Project Survey, I asked students what could have been

better about the project. Many of the practical learners responded in a similar fashion. Nate said, "You can help students a little bit more when they need it." Another student, Randy, said, "It is hard for me to just think of something (to do)." Corey mentioned, "You should give groups more time and explain to them what to do."

The overwhelming feel from practical learners is that they did not like choosing a project. On the day that we brainstormed project ideas, it felt like there were giant magnets pulling me to the groups of practical learners. They were almost begging me to tell them what to do. I tried not to explicitly tell them what project to do, but I decided that a good way to differentiate the project for these learners would be to provide a longer list of sample project ideas. Even with this long list of samples, Practical Group #2 asked me (more than once), "Mrs. Ward, are you *sure* this would be okay for our project? Are you ***really sure***?"

The key to working with practical learners is specificity. They needed absolutely clear guidelines, due dates, and possible project ideas. Next time, I will provide all students with a graphic organizer that includes all of that information.

Both practical groups completed fine projects, but they didn't seem passionate about what they were doing. I wonder if there is a way to inspire these students towards a more fulfilling project experience? As I thought through the dilemma, two possible solutions occurred to me.

I wonder if next time the practical learners should be sprinkled in through out the other groups? The groups were essentially made of students who were hesitant to make a decision unless they were 100% sure that it was what I wanted them to do. That made it tough for them to make any kind of decision. A better idea would have been for me to guide a brainstorming session with just the practical groups to come up with three clear choices. Then I could release the groups to decide between the three choices. That may limit indecisiveness and help them to feel more secure.

**The Creative Learners**

*"I like being creative with anything I do because being creative is the best way to do something." -Kenna*

## Creative Group #1: The Play

*"I enjoyed having a group with people who were creative and actors like myself." -Yvette*

Creative Group #1 brainstorming



***Figure 6.14***

**• A Snapshot of Creative Group #1 at Work...**

Creative Group #1 spent an energetic class period throwing out ideas. It was entertaining to witness. The ideas seemed to be popping out of them like hot popcorn. Once they agreed on something, they really went for it. Here is an exchange from that day (imagine the conversation occurring at rapid fire pace):

Mrs. Ward: Do you have your idea yet?

Yvette: We're doing a play and we are going to have rehearsals at Riverview! Bod is going to fall into...

Dan: Yeah! And I am Bod!

Lila: I'm Scarlett!

Jeremiah: I'm writing the script!

Dan: I am helping with that, too.

Jacob: I'm making the clouds and doing background sets.

Yvette: Okay! Who is bringing props tomorrow... Let's sign up for stuff!

Dan: Hang on! Let me write it on the whiteboard, that way we can keep track of everything.

Billie: Yeah! You write it on the whiteboard and I'll copy it into my notebook.

Yvette: Like I was saying, Bod and Scarlett are going to fall into the Sleer's hole and end up in the Jungle Book. It is going to be awesome!

Have you ever seen one of those "Whack-a-Mole" games? You know, where the little mole heads pop up really fast? That is kind of what it was like having a conversation with this group. They were so excited, and that excitement continued throughout the project up into the final performance.

In the end, the play accomplished their goal of showing understanding of characters and setting in both *The Graveyard Book* and *The Jungle Book*. It was a five minute performance about characters from *The Graveyard Book* falling into a portal that took them into *The Jungle Book*. The plot of the scene involved Mowgli and Shanti helping Bod and Scarlett make it back into the graveyard before Shere Khan found them in the jungle. There was a real sense of setting due to the painted backdrops that the group created. Based on class observations, I could see that they worked well together. There were some issues with staying on task, though. On the End of Project Survey, some students in this group noted that it was challenging to stay on task during rehearsals (see Lila's quote below).

*"Memorizing lines was easy, but trying to be serious in rehearsal was hard." --Lila*

Members of Creative Group #1 painting backdrops



***Figure 6.15***

*"The easiest part of the project was building the sets and rehearsing the play." -Jacob*

# Creative Group #2: The Mural

*"I really enjoyed the art aspect of our project, because I love drawing and painting." -Dana*

Creative Group #2 working on the mural



***Figure 6.16***

*"I enjoyed the discussion, the painting, and the writing. The easiest part was presenting." -Alice*

*"The easiest part was drawing Silas' face. That and getting the mural planned out." --Lucy*

*"I enjoyed working with some of my friends and being able to paint." --Hannah*

**• A Snapshot of Creative Group #2 at Work...**

During class observations, Creative Group #2 seemed more thoughtful and calm. For some reason, Group #1 had a lot of "performer" personalities, while Group #2 had more "artist" personalities (I split them up randomly). At first, they wanted to do a film. Alice said, "We aren't sure yet, but we think we want to do a film about the characters from *The Jungle Book* and *The Graveyard Book* meeting and having an adventure, but the other group is doing that same thing." I think they felt a bit discouraged, because they each wanted to have a really original idea. "What if we do a mural? Would that be okay?" I answered that they should do whatever was most interesting to them. "We do have a lot of artists in our group, and it would be fun to paint... Let's start a rough draft."

In the end, Creative Group #2 did a mural showing their understanding of the setting of both *The Graveyard Book* and *The Jungle Book*. It was a beautiful mural that definitely showed a clear understanding of the setting and characters. I would have liked for them to address the fact that setting is more than just a place, it is also a time.

When I observed the group, they seemed to have minimal conflict, but I was surprised by some of the results from The End of Project Survey.

Bridget (Creative Group #2): I believe that you, Mrs. Ward, could make this kind of project better next year by letting us pick our own group members.

Kayla (Creative Group #1): Have them pick a group and they would probably enjoy it more.

Heidi (Creative Group #2): Next year you should have the students pick their own groups so they don't end up being with someone they might not be able to work with.

Kendra (Practical Group #2): To make it better for next year's students you could make sure that everyone wants to be in that group.

In looking at the above student quotes, it is clear that there were some underlying issues in Creative Group #2. Three of the five students (60%) who commented on group choice were part of Creative Group #2. While conflict management was minimal in other groups, this group had some kind of unspoken issue bubbling beneath the surface. While they seemed to work well together during the project, I suspect that there were one or two students in the group that made it difficult for others to work. It was a great reminder to do check ins about group conflict during a project. If I had known about the issue, I may have been able to help address it and help this group to have a more positive experience.

## What Differentiation Strategies Worked for the Creative Learners

I could tell that the creative learners were profoundly inspired by the samples I showed them. It seemed to give them the freedom to really explore a variety of project ideas. The two creative groups really wanted to "out do" the work samples. They wanted their work to be even better than the samples. They loved having choice and the work samples also gave them a sense of competition.

## What to Improve for Next Time: "Can You Help us to Organize Our Ideas?"

 Organization *was* a bit of an issue for both creative groups. They came up with tons of ideas, but needed help with how to decide on the idea that would be best. On the project work days, they sometimes struggled to stay on task. They seemed to have constant and quick conversations. Their excitement level around the project was undeniable. It was fun to watch the creative groups as they worked.

Although excitement around a project is fantastic, it doesn't necessarily mean a group will be successful. Ultimately, kids in the creative groups would have benefited from a way to organize their thinking, perhaps in the form of a graphic organizer or thought process poster. They may have dismissed certain ideas because they were throwing out ideas too fast. They could have missed a great opportunity.

In reviewing all of the products, I noticed that most groups chose to show their understanding of the setting. Showing an understanding of the setting is definitely the easiest of the understandings to illustrate. If I do this project again, I will ask students to show their understanding of more than just one concept.

**• A Chart to Sum it Up..**

| Intelligence Type | Differentiation Strategies to Try |
|---|---|
| Analytical Learners | • Topic Choice or Artistic Options<br>• "Like-minded" Grouping<br>• Discussion Guides and Daily Check-ins<br>• Work Samples |
| Practical Learners | • Learning Contracts<br>• Clear and Limited Project Options<br>• Guided Brainstorming<br>• Sacred Learning Spaces<br>• Specificity from Teachers<br>• Plenty of Time for Revision<br>• Work Samples |
| Creative Learners | • Choice<br>• A Variety of Artistic Options (performances and visual art)<br>• Graphic Organizers to Guide Project Discussions<br>• Work Samples |

*Figure 6.17*

**Teacher Reflection on Intelligence Grouping:** *The Benefits and Drawbacks of Intelligence Style Grouping*

**• The Positives of Intelligence Grouping**

Intelligence grouping really helped me to understand the learning styles of my students. More importantly, it helped students to better understand themselves as learners. I asked in an

unrelated semester two student interest survey, "What are some ways of learning that work for you?" This survey was given three months after the Jungle Graveyard Project was completed, but some students still referred back to their intelligence styles. Ella answered the question, "Some ways of learning that helps me is getting a lot of good instructions because I'm a <u>practical</u> learner." Ella strongly identified with her intelligence style, and she now understands what she needs from teachers in order to be successful. My students learned more about themselves as learners, and that is a big positive result from the intelligence grouping experience.

Another positive was that intelligence grouping seemed to minimize conflict within groups. There were a few "hot spots" here and there, but for the most part, the groups worked efficiently with minimal conflict. This is one thing I was really hoping for, and I was pleasantly surprised that there was so little conflict.

**• The Negative Side of Intelligence Grouping- Would I Do it Again?** *Should* **I?**

While some of the intelligence grouping experience was positive, there were three major negatives. The negatives became clear once I stepped back and reflected on the process. I had to ask myself if the positives of intelligence grouping outweighed the negatives (this is that gray area that I discussed earlier).

My best advice for teachers about intelligence style groups is to use them very sparingly. If I use intelligence style grouping again, I would only do it once at the beginning of a given school year. I would use it for a mini-project, not a major trimester long project.

*• Promotes Teacher Bias*

The biggest negative about intelligence grouping is that it gives students a label, for better or worse. Where there is a label, bias will soon follow along if a teacher is not vigilant. I will never forget when a GSE professor asked, "Did the students' label influence your observation of them?" I had to answer yes. The labels really did influence me. Sometimes the influence was positive, and sometimes it was negative. This was a huge "a-ha moment" for me. I was reminded

that bias can be a sneaky thing. I am a firm believer in the fact that students will rise to a teachers' expectations. Honestly, my expectations for students were limited by the labels of practical, analytical, or creative. I expected students to act a certain way because of their intelligence group, and they certainly rose to the occasion. The crazy thing is that I didn't really even realize I was doing it until after the project was over.

This was a great reminder to me that giving labels, even seemingly innocuous ones, puts limits on what students can do. A student's potential should be limitless... I have always groaned on the inside when I hear teachers refer to students by labels. I hate it when I hear things like, "Oh, he is really low," or, "She can't do that, she's an ELL student," or, "That's a resource kid." Without really knowing I was doing it, I provided students with labels and expectations to live up to-- some positive and some negative. This was an important lesson for me on the dangers of labeling students.

   • *There's a Reason We're All Different...*
Another big "a-ha moment" happened when I thought about the strengths of the different groups. The creative groups were enthusiastic, the practical groups were goal oriented, and the analytical group was extremely thoughtful. The plusses in one group created a deficit in another group. It occurred to me that there is such beauty in our differences, and there is a reason that we're all different. We bring our intelligence styles and strengths to a group, and when our strengths are different, we compliment each other. It is almost like we all have a special intelligence style "puzzle piece" that we bring to a group. When all of the puzzle pieces are the same, there is no way that they can fit together. If I had to do it again, I would use intelligence grouping to create groups where each intelligence type was represented.

   • *Conflict Management is an Important Part of Working in a Group*
I really thought that intelligence grouping would be great for eliminating conflict, and it definitely made things run smoothly. In fact, I listed minimizing conflict as one of the positives about intelligence grouping. But after thinking about it a little more, a lack of conflict may not be

such a positive thing. Students need to know how to deal with conflict. Positive conflict management is a very important reason that I am a believer in what PBL can do for students. Positive conflict management is a critical life skill that students will need to be successful in the real world.

# Findings Part 3: Project Revision and Survey Analysis

My goal in this section is to discuss and analyze two important components of the end of the Jungle Graveyard Project: the revision process and the End of Project Survey analysis.

## • Project Presentations and Revision Lead to Beautiful Work

One great thing about this project was that it gave students an opportunity to practice kind, specific, and helpful feedback. A few days before the exhibition, students presented their projects to the class. While groups were presenting, students filled out comment cards that asked, "What did this group do well?" and, "What can this group do to improve?" Students were able to really help each other in powerful ways.

At the end of the presentations, each group was given back their feedback slips. I color coded the slips to look for examples of kind, specific, and helpful feedback. I found that most of the feedback fell into two categories- kind and specific or helpful and specific. I was looking for students to reach beyond the type of feedback they normally give (ex. "Good job," or "That looks good"). I found that middle schoolers have a tough time with specificity, so we practiced a bit before the actual project presentations.

Below are some of the examples of student commentary. The most powerful thing for groups was when they saw a pattern in the comments. Then they really knew that they needed to spend time fixing the problem.

• *Analytical Group: Picture Book*

This group presented an almost complete project to the class. Here are some examples of kind, specific, and helpful feedback:

KIND and SPECIFIC

Kylie: They did a nice job making the ghouls look festive.

Dana: I especially appreciated Keree's werewolf drawing, since I can never draw the front legs of wolves correctly.

HELPFUL and SPECIFIC

Randy: They could of made a title page.

Jon: The group could improve on making a title page.

Yvette: They should of done a title page for the picture book.

Alice: I suggest that this group include words to go along with the pictures and use a title page.

Dan: Maybe have a title page?

Hattie: They should draw a title page.

Amber: This group could of made a title page.

Jacob: Make a title page to explain the story.

Needless to say, after the presentations, this group knew that they absolutely needed to include a title page before the project exhibition! They felt good knowing that the drawings were fabulous and they were on the right track going into exhibition.


• *Practical Group #1: The Diorama*

This group presented a complete project to the class. Here are examples of kind, specific, and helpful feedback:

KIND and SPECIFIC

Tim: Lots of fine details.

Bridget: The details of the graveyard were very intricate and overall it looks fantastic.

HELPFUL and SPECIFIC

Yvette: It would have been better to paint the outside.

Jacob: Paint the outside of the cardboard to make it look nice and clean.

This group learned that the details of the project were great. They knew that they needed to clean up the outside of the project prior to exhibition.

• *Practical Group #2: The RAFT Letter*

This group presented a complete project to the class. Here are examples of kind, specific, and helpful feedback:

KIND and SPECIFIC

Jon: The group had a great understanding of the relationship between Bod and Scarlet.

Dan: The letter is really sweet. They really made it sound like it was from a six year old!

Yvette: I like how they made it look like a six year old made the letter.

HELPFUL and SPECIFIC

Bridget: In their poster, since the setting is in England, they could've used pounds instead of dollars.

Jacob: The money amount should be in pounds.

Tim: Put a pound sign instead of a money sign.

Randy: The money should be in pounds, not dollars.

Janet: Get English money correct.

They knew that the letter had great content and were excited to present. The dollars to pounds fix was really simple.

• *Creative Group #1: The Play*

This group presented a complete project to the class. They did struggle to stay in character (see feedback below). Here are examples of kind, specific, and helpful feedback:

KIND and SPECIFIC

Janet: They worked well together and were hilarious!

Randy: I like how the script had some humor.

HELPFUL and SPECIFIC

Jon: This group could work on maybe not laughing a lot.

Hattie: They should try not to break character next time.

Kendra: Don't laugh as much.

After seeing the feedback, I spent time talking to this group about staying in character through the whole play. We also talked about how jokes are not as funny when performers laugh at themselves. They knew that they had a funny script, now they had to find the self- control to not laugh.

*• Creative Group #2: The Mural*

Out of all the groups, this group was the most polished and ready for exhibition. The mural looked professional and was truly beautiful work. There weren't really any good examples of helpful and specific feedback, but there was lots of kind and specific feedback.

KIND and SPECIFIC

Jon: Everyone in this group did something great to help the group be successful.

Randy: I like the painting. It's good detail.

Billie: Their painting was beautiful.

Nate: They had a lot of detail on the mural.

Jacob: Worked together in different stations to put together a very nice work of art.

From this feedback, the group knew that the mural was easily understood and appreciated by an audience.

This revision process was an integral part of the PBL experience. It also turned out to be a great differentiation strategy. The best part about it is that it is students helping other students. During revision, I simply stood back and facilitated the class. The revision process really helps to promote what Ron Berger refers to as a culture of "positive peer pressure" (2003, p. 36)

## • End of Project Survey Analysis

After our project exhibition, I asked students to complete an End of Project Survey (see Appendix 6). Although it was a narrative survey, I was able to find patterns in some of the student responses that I could quantify (see below).

I asked students what they enjoyed most about the Jungle Graveyard Project. Below is a graph of some of the trends I saw in the narrative responses to the question.
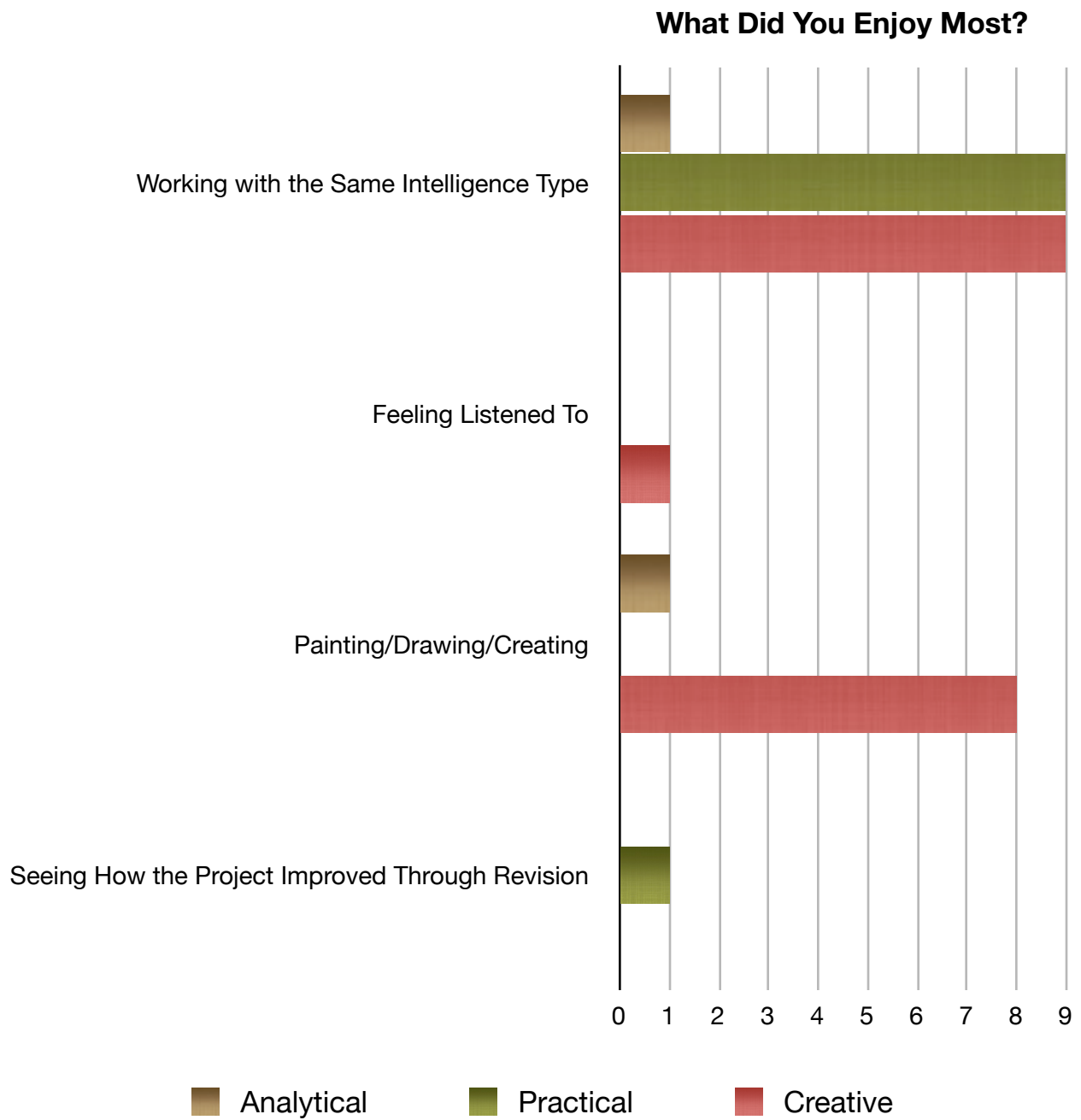
## What Did You Enjoy Most?

| | Analytical | Practical | Creative |
|---|---|---|---|
| Working with the Same Intelligence Type | 1 | 9 | 9 |
| Feeling Listened To | | | 1 |
| Painting/Drawing/Creating | 1 | | 8 |
| Seeing How the Project Improved Through Revision | | 1 | |

*Figure 6.18*

Of all the differentiation strategies I used, intelligence type grouping was the strategy that students most commented on. Most comments about the groups were positive:

Cody (Practical Group #1): I enjoyed that we all got along and we all got to do something.

Kendra (Practical Group #2): What I enjoyed about working in my group was that we all agreed and thought the same thing most of the time.

Annie (Creative Group #1): I enjoyed how we never did once fight about anything.

Amber (Practical Group #1): I liked at all of us were a little bit alike and the we all did get along.

Jacob (Creative Group #1): I enjoyed being around the creative people in my group.

Marie (Creative Group #2): I enjoyed that we could work with people who think the same way we do, but I wish that we could have picked who we worked with within our thinking style.

So, students liked that they got along with each other and had minimal conflict in their groups, but Marie has a valid point. For the creative and practical groups, I split them up randomly. I did not allow students to choose groups within their intelligence types. This is something that I would change if I did intelligence groups again, because there were 5 students (15%) who would have liked to have had a choice in their group.

• *More Student Commentary on Grouping*

 On the End of Project Survey, I asked my students, "How can I make this project better for next year's students?" The results were varied, but I was able to quantify trends by color coding narrative responses.

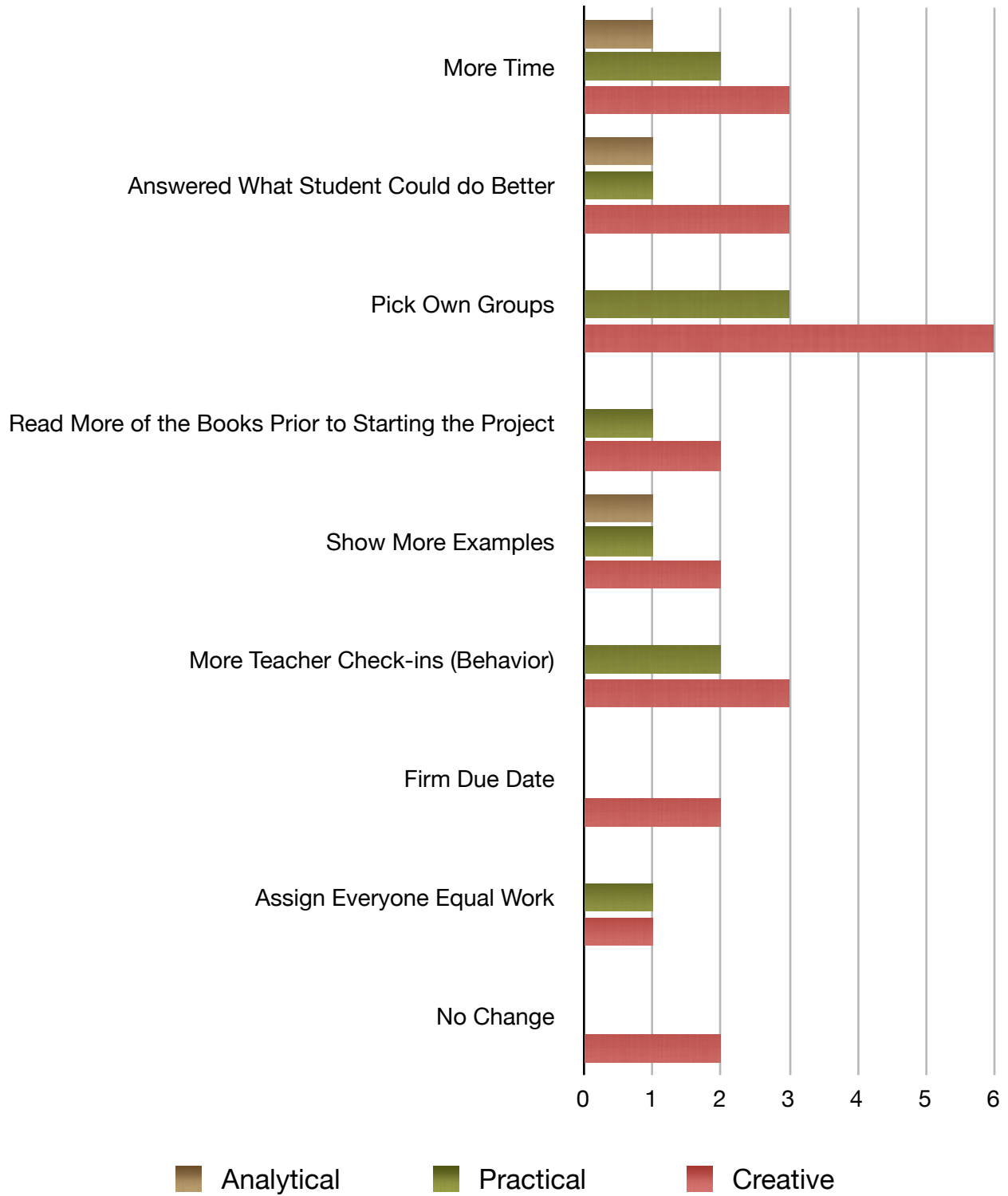## How Can I Make This Project Better?



*Figure 6.19*

## Some Interesting Results...

• *Grouping Strategies*

9 students out of the 36 in my class (25%) commented on the grouping strategy. Most of them said that they would like choice in groups. I wonder if I will ever figure out the best way to group students... I guess the answer is to try different grouping strategies for every project. That way, every student feels like they have had some type of grouping that they enjoy.

Here are some of the students' ideas for future grouping strategies:

Annie: I think this project would be better if the groups were smaller.

Anna: Having a kid go with another group for a day so that they can see how they work with all types of people.

Kylie: The groups should be smaller.

Melanie: Next year you could possible let us choose our own groups.


• *More Time!*

I encounter this response almost every time my class has a PBL experience. They say, "I felt rushed," or, "I needed more time!" Time management is something that I also need to figure out. I thought that group learning contracts would help with time management, but some groups still struggled to get projects finished on time.


Here is what students had to say:

Bridget: You could give us a little more time so we wouldn't have to rush.

Cody: I think next year you should give them more time to be in there groups and more time to explain what they want to do.


• *Answered What Student Could Do Better*

I asked students, "How can I (Mrs. Ward) make this project better?" 5 out of 36 students (14%) answered what *they* could do better next time. These answers perplexed me. For example, Jeremiah said, "I could spend more time working on the script." I wanted students to tell me what *I* (the teacher) could do better, not what *they* could do better. At first, I just chalked it up to

careless reading of the survey question. Then I thought about it some more. I wondered if these answers were a symptom of a bigger problem. Am I asking students enough for their feedback? Does it feel normal for students to respond to a question like this? It was a great reminder for me to really seek input from my students on a regular basis.