

POSITIVE PEER CULTURE PROGRAM AND ITS IMPACT ON ACADEMIC
SUCCESS AND PERFORMANCE IN THE SCIENTIFIC METHOD

by

Alyx Andrea Demers

A professional paper submitted in partial fulfillment
of the requirements for the degree

of

Master of Science

in

Science Education

MONTANA STATE UNIVERSITY
Bozeman, Montana

July 2015

©COPYRIGHT

Alyx Andrea Demers

2015

All Rights Reserved

ACKNOWLEDGEMENTS

There are three very important and influential family members in my life that have given me the support and courage to achieve this degree; my mom, Toni, my dad, Marc, and my son, Jacob. I would have not been able to reach this point without you. Jacob, you give your mother ambition to better her life, so you have every opportunity available. Thank you so much!

I would like to give a huge thank you to the following people who helped me throughout my project. Arthur Deen, Darby Merrill, Kari Thacker, Ben Stoddard, Dave Rollins, and the rest of the teachers and administration at Juniper Hills High School that allowed me into their classrooms so many times to collect data. The kindness you all have shown me and took time from your personal lives to help me with this project.

TABLE OF CONTENTS

1. INTRODUCTION AND BACKGROUND	1
2. CONCEPTUAL FRAMEWORK	3
3. METHODOLOGY	8
4. DATA AND ANALYSIS	19
5. INTERPRETATION AND CONCLUSION	35
6. VALUE	38
REFERENCES CITED.....	41
APPENDICIES	43
APPENDIX A: Student Staff Surveys.....	44
APPENDIX B: Principal Exemption Forms and IRB Exemption Form	46
APPENDIX C: Open Ended Survey.....	50
APPENDIX D: Teacher Reflection	51
APPENDIX E: Teacher Evaluation	53
APPENDIX F: Pre/Post Survey Journals-Students	55
APPENDIX G: Pre-survey—PPC and Scientific Method Results-Students.....	57
APPENDIX H: Teacher Constructive Ideas on PPC with Scientific Method	63

LIST OF TABLES

1. Instrument Matrix	14
2. ABC's of Problem Solving versus Scientific Method	17
3. Types of Demographics	21
4. Grade Averages from Survey per Group	24
5. Group Stages	25

LIST OF FIGURES

1. Distribution of Students Based on Months	20
2. Group Averages	23
3. AD Group 4 Program versus Academic Success.....	28
4. HW Group 11 Program versus Academic Success.....	29
5. How Confident Are You When Asked to Problem Solve	34

ABSTRACT

This project evaluated the effects of Juniper Hills High School's program management system on the student's academic performance and on students ability to problem solve with Positive Peer Culture and scientific method. Between January 2014 and October 2014, seven groups surveyed their peers on two areas of importance: their academic success and their successes in program. During Term 3 in the school year 2014-2015, eleven students participated in scientific journaling focusing on their ability to problem solve different science issues. This project generated evidence that students have an increased understanding of the scientific method when used with Positive Peer Culture and that Positive Peer Culture plays a major factor when students are achieving or failing in the academic classroom.

INTRODUCTION AND BACKGROUND

My teaching career has been very unique. Most teachers find themselves in public education, however, I have never taught in a public school. My first few years of teaching science were in a military-style high school for at-risk youth. I was the authoritarian in my classroom. Whenever someone showed any type of unsocial behavior, I was allowed to assign any type of physical fitness that was approved by the National Guard. This facility was called The Montana Youth Challenge Academy. This academy used behavior modification to change cadets' attitudes and perspectives on their hurting behaviors in the community. Three years later, I was given an opportunity for an interview in Idaho. In the job interview, the principal informed me of the classroom management style of Positive Peer Culture. This program was completely foreign to me. My concern was with placing the decision making that happens in the classroom the responsibility on the students and its impact on the classroom. What will students do when given the chance to control everything in the classroom? Will they choose not to do school work and play games all day?

Juniper Hills High School (JHHS) uses a classroom management system called Positive Peer Culture (PPC). My students live at the facility and use PPC as their treatment program. PPC relies on using teens to teach their peers the appropriate way to behave and succeed in everyday life. It expects them to adopt what society believes is the norm. The peers become leaders in the classroom. The peers are responsible and accountable for their peers' behaviors and their lack of achievement in the classroom. This is a different technique from what normal public school teachers use.

Positive Peer Culture is the platform on which the facility bases all aspects of schooling and other treatment requirements. Students are enrolled in school due to Rule 19. This rule states that the juvenile needs to meet special requirements to be committed. Juniper Hills High is an open enrollment, open exit, year round school and can have students leave or enroll any day of the year. There is no typical day at school. The schedule is outlined as four hours of core school work and two hours of vocational period. However, the schedule may change depending on sessions, restraints, or other issues that might arise. Every 12 weeks the groups must participate in helping with the institutional needs for the campus, (e.g. kitchen, laundry, recycling, and special needs), which takes away from school time. Though beneficial to the students in many ways, these activities tend to interfere with school or the education process. This left me with many questions: How does PPC truly affect academics? Does PPC help or hinder the learning process? What good could come from student standing in session (sometimes for hours and several times a week) and somehow students still achieve an education?

The school contains 12 different groups made up of about 10-12 students. Ages range from around 12 years old to 21. Each group has different qualities to them. We have two female groups, four different male groups who have been convicted of sexual crimes, and six groups made up of conduct disorder students. Each group is also separated into different height, maturity, weight, size, and IQ levels. The facility also tries not to place juveniles of larger statures with shorter and younger student for security reasons. For example, the Falcon and Viking groups are typically our younger, more immature students. These students are approximately 60-65 inches. We have groups like

the Crusaders and Spartans that are comprised of students convicted of gang behaviors and/or substance abuse problems. Most of these students are nearly 6 feet tall or greater. All groups must utilize the PPC program.

With a better understanding of PPC, I began to wonder if using this program in the classroom would somehow change or impact the academic performance of our students. I specifically wanted to know if PPC's use of problem solving would help students better comprehend the scientific method. This would be important for students to become better critical thinkers. Many students lack critical thinking skills (processing through consequences before actions); by using science processing skills these students can improve critical thinking skills, which what led me to my project's questions, "Does the application of the PPC (Positive Peer Culture) program change academic performance for students at Juniper Hills High School?" A sub question includes: "How does problem solving in the PPC program help students process and work with the scientific method?"

CONCEPTUAL FRAMEWORK

At JHHS, peer influence is used to help reclaim at-risk youth with the help of PPC. Positive Peer Culture is not new to the area of sociology and is very common. Fort Hall, Idaho High School, Red Creek Treatment Facility, and several others are among the few treatment facilities and schools that use PPC around the world. Using students to co-teach and collaborate with their peers is not a new idea and neither are the effects of peer pressure in our classrooms.

Peer pressure is not uncommon and often we hear about the harmful effects it has on our children. Parents and teachers place the blame for the negative behaviors youth

show on peer pressure. “Peer pressure susceptibility has been found to be related to youth problems such as substance use and alcohol drinking” (Chan & Chan, 2011, p. 287).

During the teenage years, parents and teachers have a reduced input into how juveniles will turn out (Burns & Darling, 2002, p. 4). In Steinburg’s survey of 20,000 teachers, he found that juveniles (more specifically teenagers) are more susceptible to the influence of peers than that of adult authority figures (Gartner, 1996). “Peer influence, involves changing one's behavior to meet the perceived expectations of others” (Burns & Darling, 2002, p 4). Teenagers tend to be more influenced by what their peers will think or how their peers will react towards them in different situations. I have personally seen the advantages of when we use this peer influence to reclaim troubled youth.

When a teacher starts at JHHS, they are given material to read to become better acquainted with the PPC style. Within the Positive Peer Culture book by Harry Vorrath, there were several studies that related well with the population worked with at JHHS. One example included research on 231 adjudicated youth whose ages ranged from 12-18 years old. The grade levels were between fifth and eleventh grade. “173 of these youth were male and 58 were female. Other demographics include: 199 were Caucasian, 11 Black, 5 Chicano, and 16 Native Americans” (Davis and Hoffman, 1988, pp. 137-145). These demographics fit what is typically seen in students at Juniper Hills High School. These students have been labeled social misfits and/or problem youth. The above mentioned juveniles participated in both a pre-and-post-test about their self-concepts. The results were defined between a t-test, a test that helps compare whether two groups have different average values, and standard deviations, (a quantity calculated to indicate to the

extent of deviation for as a group whole). The research indicated a ($p < .01$). This p-value means the researchers found that students were all statistically higher with having an improved self-concept and self-esteem along with a “better level of psychological correction” after the use of PPC (Davis and Hoffman, 1988, p. 137-143). Juveniles who took part in PPC treatment did make significant changes in their overall self-worth and self-esteem. These improvements help the juveniles make better life decisions, and subsequently, improve their academic performance. The PPC program helps students develop better self-esteem and self-image to stray away from negative influences. This made me excited with regards to my student’s education as this began to drive my capstone project. Below are significant changes that were observed in juveniles during Davis and Hoffman’s research:

PPC students’ suspension rates declined after 1 year: 0.31 to 0.26. Control students’ suspension rates rose after one year, 0.07 to 0.15. Tardy rates declined for PPC students from 3.2 to 2.7. Tardy rates rose for control students from 2.4 to 4.3; problem-solving abilities were enhanced by students who participated in the PPC program and were better than those of students who were not involved in the program. The attitudes of students involved in the PPC group, towards school remained constant from fall to spring testing (Gardner, H., 1982, p. 326).

The researchers did not include how these values were labeled. Positive Peer Culture is a complex program and has a lot of essentials. Positive Peer Culture cannot work without a safe place to discuss past emotional and physical abuse and receive help.

At JHHS, it is called group meeting. These meetings happen behind closed doors with a staff member and the group facilitating the meeting. This is where public school settings tend to fall short in offering PPC in their environments. Roffers (1979) stated that there is a significant difference between residential treatment programs and public school.

Because of these differences, there are a few hurdles before PPC can be used in the public school system. Vorrath (1985) discusses several problems with transferring the program into public schools. These problems were: school programs usually involve only a select few students such as SPED, suspensions; the school day is constrained to only eight hours, public school does not usually adapt well into the existing structure of turning over responsibility and choices to students, and finally parent support and permission is needed for the program to succeed. Even though many teachers, parents, and programs recognize that students should be able to help each other and use peer “pressures”, not everyone will agree to the amount of time that needs to be used to implement this program. However, due to the emphasis on positive behaviors in public schools, this makes it the one of the main reasons they could expand their philosophies with PPC. When PPC is completely in place, it becomes a setting for positive learning experiences for all students involved.

Positive Peer Culture spends countless hours teaching students that the world does not revolve around them and that the caring thing to do is to always help others. The students that attend Juniper Hills High School are not accustomed to helping others, mainly because they have made the choice to victimize someone and break the law to fill their own needs and wants. The closest to helping others many students have seen was

court ordered for community service. However, students begin to feel good about them after being able to help someone else. The key element in PPC is to make sure students begin to feel good about them after they successfully help a peer (Gartner, 1996).

Residential treatment centers and facilities tend to have a wide demographic of students.

A group of students that have wider demographics and have lived through more hardships tend to have an increase of learned poor social skills and have led these students to have less socially acceptable behaviors. I believe that students who have lived through these hardships seem to be the best peers to become tutors because they are able to explain things to their peers in better ways and relate to their peers' experiences that teachers sometimes cannot do. Using teens in classrooms provides them with a chance to become happy and build self-esteem through a feeling of accomplishment. When teens feel this way, they are more likely to make positive choices and avoid the negative ones. PPC has been tested through many different school-based activities.

As part of a drop-out prevention effort, a tutoring program was started in three New York City high schools, and tutees were involved with tutors in training activities and in refining elements of the program. They were also given the opportunity to become tutors the following semester if they successfully passed the course in which they were being tutored. Compared with similar students who were being tutored as part of a traditional tutoring program at three other high schools, the first group of tutees had higher rates of completion in tutored courses and received significantly higher grades in tutored subjects (Gartner, 1982, p. 236).

In order to determine the effectiveness of PPC after it's introduced into schools? A study was done two years after the introduction of Positive Peer Culture in New York schools and to three area schools without PPC. The study "noted the attitudes of students in PPC compared to three different schools in the area were significantly higher ($p = 0.05$) than the other two control groups, as well as better grades in reading and writing following the two year period" (Gartner, 1982, p. 236). Students have the opportunity to become successful, and to build self-worth, and self-esteem when using PPC.

METHODOLOGY

Positive Peer Culture's overall meaning is that while a student is in a group, that student must focus on helping the other members in that group before her/himself. These students are added to the group after Observation and Assessment (entrance testing), and a spot has become available in the appropriate group for the juvenile. The student will then remain with the group at all times. The students will eat, sleep, shower, and attend school together. It is rare for any individual to be separated from the group for any significant length of time. The individual's goal is to help their peers within their group to change values, show positive behaviors better suited for society norms, and eventually earn a release.

The group is responsible for all decision making such as when to leave the classroom for lunch, to the groups evening schedule, and when assignments are due. There are some decisions the groups do not get to decide such as when gym time is, not to take showers or hygiene, and the group cannot place consequences on their peers. They are held responsible if one of their peers does not complete an assignment. All decisions

the group decides is the best thing going to do about problems or decisions need be processed through the group first, and then staff. As staff, we observe the students to maintain a safe environment. Often staff will ask if a student is showing a hurting behavior that is not being confronted by their peers. The PPC program even has a process for when students are showing a hurting behavior, it is called the “cue, check, or session.”

Positive Peer Culture is governed by perceptions. When another student perceives that there is a problem, then the student follows a set of guidelines outlined in the PPC program. A hurting behavior is described as any behavior that is not socially acceptable. A cue is a simple reminder not to do something (i.e.; John, please do not pick at your scabs in public). A check is when a student asks another student to take accountability for a problem behavior (i.e.; John, will you be accountable for trying to argue with staff?). If a juvenile states “no” or shows the same behavior later in the day; then the juvenile is asked to go to session. A session consists of the entire group getting into a circle. All sessions follow the format below.

- Group ready? Staff ready? Juvenile John, I am calling you to a helping session. The problem I feel you have shown is that you were trying to (enter the hurting behavior here). Do you see your problem?
- If the juvenile who has been called to a helping session accepts their problem then they “put their behavior in check”. Putting the students behavior in check means the juvenile is choosing not to show this behavior again or is to do something they were asked to do before the confront, and will continue to work on this anti-social behavior. The juvenile then needs to label their

behavior with one of the nine different problem behaviors and list a caption. If the juvenile does not see how their behavior was hurtful, the juvenile gets a moment to explain why they do not agree.

- The student running the session then asks for awareness. All conversations dealing with juveniles, whether non-verbal or verbal, needs to have at least two other people aware of the conversation. This is called awareness. The group is responsible for awareness on all their peers all the time. Whenever there is a conversation the minimum amount of peers that need to be present is three. Sometimes the entire group needs to be aware. Any peers that were aware of the problem behavior state what they saw and how they perceived it.
- The juvenile running the session asks if anyone needs clarification.
- Finally, the group votes. A majority of the group needs to “see” the problem. When the majority sees the problem, the juvenile then needs to place the behavior in check. In check behavior means the juvenile is going to stop showing the hurtful behavior and will not show this behavior again.

We get juveniles who want to be stubborn or do not agree with the group and then “stand-out-of-check.” Standing out of check is when the juvenile stands in the circle either quietly or verbally hostile. Most students struggle with this part because they feel they have been wronged some way. Like most things in life, there are sometimes no absolute right or wrong answers. Students also use sessions as a way to divert the focus off their real problems.

Another important aspect of our program is appropriate awareness. Appropriate

awareness can be as small as three peers, three students to one staff, or the entire group being aware of one conversation. Appropriate awareness keeps the juveniles and staff safe from litigation and speculation. For instance, a student could be giving help or receiving help academically from a teacher without awareness and then state something was said between staff and juvenile that was inappropriate.

Positive Peer Culture allows for differences depending on the situation and the staff. For example, the facility has very high-risk students who like to be restrained. For some reason, students have admitted that being restrained helps the student feel what they have been taught to think is “normal.” Many of these students are the students who have been abused physically and/or sexually. Sometimes students can see restraints as a form of punishment for their actions. Once the peer feels s/he has been “punished ,” s/he will move on until s/he becomes frustrated or irritated at an outcome and will start the whole cycle over again. Whenever a student needs to be restrained; the group is taught on how to restrain their peers and follows through with the peer assisted restraint. It is very rare that staff will use a staff only restraint (Authorized Use of Force (AUF)) of a juvenile. AUF restraints are usually used when it is just the juvenile and staff, which rarely happens as the group remains together. Multiple students can be restrained at a single time depending on what the situation calls for. As a facility, we tend to see multiple restraints depending on stage of the group.

PPC teaches staff that groups can be in four recognizable stages. When groups are in the PPC stage; the group is able to make all responsible decisions and tends to achieve high academic marks. This is because the group makes it “cool” to succeed in the

classroom and in program and “uncool” to be delinquent. This helps staff at the facility to determine how to deal and teach groups in the best way possible. The four stages are Casing, Limit-Testing, Polarization, Positive Peer Culture (PPC) groups. A group that is in Casing tends to hold on tight to their negative belief systems and needs to be taught how to care for each other and how to run Positive Peer Culture. In Limit-Testing, very little school work, priorities, or PPC is run due to the constant teaching of PPC. A group that is in Limit-Testing tends to have students who do not see their weaknesses or negative behaviors. They blame staff or authority for any group or individual problems. The student is not convinced of the program and usually has no desire to give up their negative values. When the group is at these two low functioning levels, my classroom becomes a dysfunctional mess. Students arguing with each other and are not motivated to learn. With the first two types of groups, I have noticed that students do not achieve very good testing scores or get a lot of homework done during these stages. Mainly, I think it’s due to their current values on behaviors and academics. Polarization groups tend to have a positive core (a group of students who are changing their values and caring for each other) and a negative core (a group of students who are holding on to their negative belief systems and willing to hurt others). These two factions tend to argue and not get along. The difference between Limit-testing and Polarized groups is basically who the conflict is with. Staff sees a polarized faction, usually this means students are beginning to see value in school and program and understanding that they are important. The PPC groups tend to be called “smooth” running groups who tend to function with minimal supervision and are successful with any project or problem given. The PPC groups tend to care for each

other and have made their group a safe place to deal with problems and are able to request peers to begin release process group meetings. However, PPC group peers tend to have higher expectations on themselves than what a typical staff would have. The main goal of the program is to have all groups eventually reach PPC or individual students reach that aspect and leave the program.

Instrumentation

Our school's culture is fast-paced with very little time for teachers to interact with groups other than their own. Within this constraint, I have decided to complete the following instruments that can be seen in Table 1: Instrument Matrix. The instruments I chose to utilize can be completed without my supervision.

Table 1
Instrument Matrix

Question	Instrument 1	Instrument 2	Instrument 3
Does the application of the PPC (Positive Peer Culture) program change academic performance for students at Juniper Hills High School?	Student survey Every two weeks (score a peer on a 1 to 10 scale in various areas for performance)	Teacher survey's Every two weeks (score student on a 1 to 10 scale in various areas for performance)	Student open ended questionnaires
Sub question: How does problem solving in the PPC program help students process and work through the scientific method?	Student's will completes a mini science lessons- journals will be tracked for completion	Teacher survey (the exact survey completed from the question above to track academic progress.)	Student open ended questionnaires

Note. N=106

During my second year at Juniper Hills High School, I determined how to collect data on how Positive Peer Culture (PPC) affects academic performance by deciding to

give a student survey to seven groups every two weeks (N=106). The survey can be found in Appendix A. The research methodology for this project received an exemption by Montana State University's Institutional Review Board and compliance for working with human subjects was maintained and a copy can be found in Appendix B.

The groups that received the surveys were approved by each group's core teacher willing to participate in my action research project. I first picked a document on campus called the Characteristics of a Release Student and chose five different categories for students to grade (See Appendix A), on a scale of one to ten, in academics. I also decided on ten different categories for PPC focused questions. This way I could calculate one student's scores on a figure and compare the linear changes in both in relation to each other. A score of one on the scale would represent new peers or those who have not started showing positive behaviors. When students first come to JHHS, we see a behavior that we describe as "honeymooning." Students will put on a show and will not make their problems known to the group until later, usually when the student becomes comfortable with the group. A score of ten on the scale represents a student that is about to leave our school and return back to society. We call these student's "release students." Release students are supposed to be the students in the group that have shown a change in their values and have shown the ability to act appropriately according to social norms, and can solve problems in a pro-social manner.

I piloted the survey with my co-workers to assess the validity of its questions. With their help, I was able to design a survey I feel is unbiased. After that, I tested the survey on one group who was not going to participate in the actual data collection

section. These students helped to refine the scale score by asking me to list examples seen at the bottom of Appendix A, and clear up any misunderstandings the directions might have caused the other students.

Once this was complete, I began by going to each group bi-weekly for over a month answering any questions the students might have about the format while filling out the surveys. After a month of mentoring the groups on how to read and complete these surveys effectively, I allowed them to complete the surveys with appropriate awareness, which was under teacher supervision and completed with at least two other peers. The same survey, with students' scores on it (Appendix A), was given to the core teacher of the group. This accomplished several things for my data. I wanted to be able to compare the scores of the peers to those of the core teacher.

The data was placed in a spreadsheet and marked by an individual's initials and entry date for reference.. Students were coded based on their group number, entry date, and their first and last initial. I then entered the information given on the surveys in the appropriate columns and averaged the information to produce two graphical points. The program participation points add up to 200, whereas academic progress adds up to 110. I used these figure points to plot these lines on the same figure and to see if they had any trends or relationships.

My colleague, Mr. Arthur Deen, helped me set up and arrange my data for observing any student trends based on their age, length of stay, and the type of group each student is in. It has been observed that some of our groups tend to have longer stays on campus due to their passive aggressive behaviors and that they have treatment outside

of school to complete (extra treatment that is required; such as Juvenile Sexual Offender Treatment). I also was able to compare the campus as a whole to see any trends.

I completed my main action research question by giving an open ended survey to three students in all groups on campus. I dropped off the questionnaire with the groups and allowed the group to pick three students from each group to complete the open ended survey at the end of the data collection period for the surveys.

First Sub-Question Implementation

I noticed staff placed a lot of emphasis on the problem solving method with the groups on campus. There is a strong similarity between the scientific method and the basics of problem solving with PPC. This lead me to my next question, “How does problem solving in the PPC program help students process and work through the scientific method?” Both of these methods begin with a problem or an observation. Then the student must hypothesize and brainstorm a new way to solve the problem. Eventually students will conduct an experiment or in the PPC problem solving steps attempt to resolve a problem. Below is a table that defines what we at Juniper Hills High School call the ABC’s of problem solving with the PPC program and the scientific method.

Table 2
ABC’s of PPC versus Scientific Method

PPC	Scientific Method
A- Awareness on Problem	Observation/Problem
B- Brainstorm	Research
C-Choose	Hypothesis
D- Do it!	Experiment

E- Evaluation	Conclusion
---------------	------------

Like the scientific method, the ABC's of problem solving does not always go in a linear format. Many times, students must go back and re-brainstorm solutions for problems their group encounters. I began this implementation by giving students a pre-test on information that will be reviewed over the following two months (term) through slide presentations. The pre-test was similar to The Background Knowledge Probe from the Classroom Assessment Techniques (CAT) (Angelo & Cross, 1993). The Background Knowledge Probe is a short, simple questionnaire given to students at the start of a course or before the introduction of a new unit, lesson or topic. It is designed to uncover students' pre-conceptions. Questions were not multiple choice or short answer. Students had to express how they were able to achieve the answer, which is more important than the answer itself. Halfway through the two months, students took part in a questionnaire that was similar to their pre-conception survey called the midterm, and then finally a post-survey at the end of the term.

All lessons were mini science lessons geared towards problem solving and the scientific method. Students were asked different problems that they had to solve explaining the overall steps. Students were graded on the amount of detail in their answer. I wanted to see if students' ability to problem solve different questions improved as their stay and understanding of the program grew.

A rubric was created and given to the students at the beginning of the data collection. My hypothesis and my data will show that when a student progresses in PPC,

their ability to solve problems will become increase whether it be a problem in their program or in the context of the scientific method.

My time frame began with students, (n=11), who were new to PPC starting near or at the beginning of Term 3. The students I selected entered the facility close to the start date of this section implementation and needed the approval of the core teacher of the class. I selected new students, so the teacher and I could see improvement from their entry date. My data could be skewed if I used students who have been at our school for longer than three months and have begun to trust in the PPC program and understand the problem-solving techniques. I picked a limited number of students due to daily time constraints. Normally in my schedule at school I have very limited time to have access to the students every day for any questions they might have with their mini lesson. Some students I was unable to have any access to since they have their core period while I have my students.

Next, I had the teachers fill out a survey asking about their students' understanding of PPC and problem solving. Students were asked in their pre-survey about the ABC's of problem solving and what these steps were, to see if students had a basic understanding of this part of the program. This instrument was a guide to understanding how well these students are doing with PPC in the classroom and problem solving through everyday life problems.

There were 11 students who took part in this data collection. Seven students were males, three females, and one who did not want to give demographics. The demographics are as follows: eight were on Individual Education Plans (IEPs); three Hispanics, three

Native Americans, one Chinese/Caucasian, and three Caucasians that participated in the survey. The ages ranged from 15 to 17 with the lowest grade level completed being eighth and the highest grade level completed being tenth.

DATA AND ANALYSIS

Main Action Research Question

I used the instruments listed in the above section to answer the question, “Does Positive Peer Culture (PPC) affect academic success?” The survey was administered to nine groups on campus (N = 106). Students started taking a biweekly survey in February 2014, or from the start of their stay at the facility. A copy of the survey is provided in Appendix A.

Using the surveys, I was able to collect data and determine approximately how long each student remained at Juniper Hills High School. This is important because it shows why I decided to collect my data for at least six months and we usually see improvement in the students; which should be reflected in the data to follow.

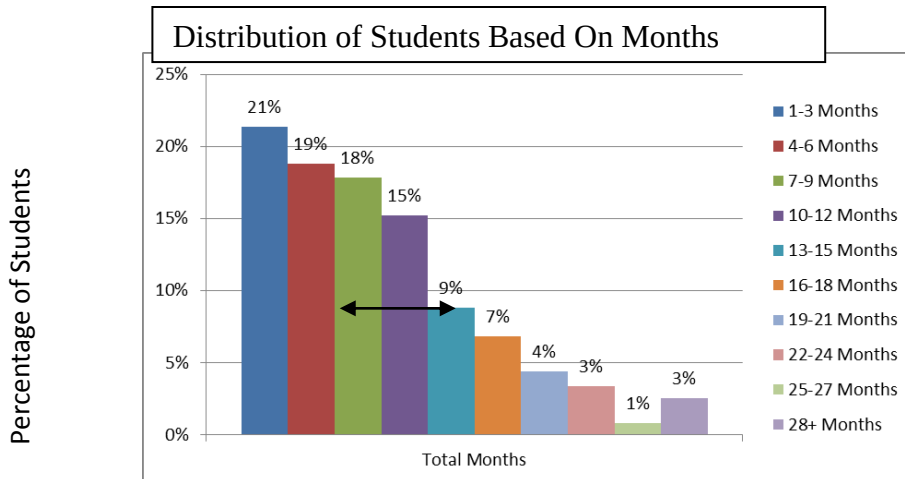


Figure 1. Amount of students based on months at JHHS, (N = 106).

The average length of stay for students at our school during the data collection period was approximately 10-12 months. The figures illustrate a large drop in the number of students remaining after 12 months meaning many of our students are with us for the length of a school year before returning back to the community. I have marked this area with a double arrow for quick referencing. During these twelve months, we must teach proper social skills, try to get the student caught up in school, and return them as a productive member of society.

The Positive Peer Culture program is very difficult to complete in less than six months. Students usually stay with our facility for six months because it allows for all parties involved to create and complete the necessary paper work needed to allow the individual back into the community. Usually sex offender communities do not want the individual back, and it often takes longer to place the juvenile elsewhere.

Additional topics of discussion are the outliers that have been in the program for two or more years. This facility is not based on science and is a social system. Sometimes there are outliers that even staff cannot control. For instance, if a judge decides it's time for a juvenile to move to jail or return home, we as a facility have no input in this judgement. This program does not work for every student and eventually some students will age-out or become too costly for the State of Idaho, and the student will be released back into the community or sent to another program.

Next, I wanted to see how individual groups compared to each other depending on the groups' demographics (Table 3). As stated in the methodology section, all groups on

campus are placed into separate groups depending on different variables including their possible offences. These labels in Table 3 will be important for Table 4.

Table 3
Types of Demographic Groups

Conduct Disorder =C
Sexual Offences=S
Female Conduct/Sexual Offences=F

Figure 2 will compare group average scores from the peer-teacher surveys as compared to the four groups mean. Each group's scores for academics and program were averaged together for the survey date. This was done to find where the whole group scored and to show how the group was functioning as a whole. The values were shown as an average in percentage form.

All four groups differ significantly when comparing the group's crime demographics. I picked one of two female groups because they were the only group out of the seven to reach PPC stage during the duration of data collection. I also picked one of two groups who may have sexual offences. Finally, I chose two conduct disorder groups because of their ability to stay in Polarization through the duration of data collecting (possible control). Group 4 was a female group. The other three groups are male; two groups that tend to lean towards conduct disorder crimes (Group 1 and 2), and one group that tend to lean towards sex offender crimes (Group 3). I feel these demographics are important when comparing the data since these demographics plays a part in how each group differs, and I have observed how demographics play an important

part in the group on a daily basis. I have observed that sex offender students tend to play passive aggressive roles and keep many problems and behaviors from staff's awareness. Whereas, conduct disorder groups may throw punches and move on. In Figure 2, it looks as those female groups tend to show more value and effort into their school without much pushing from authority.

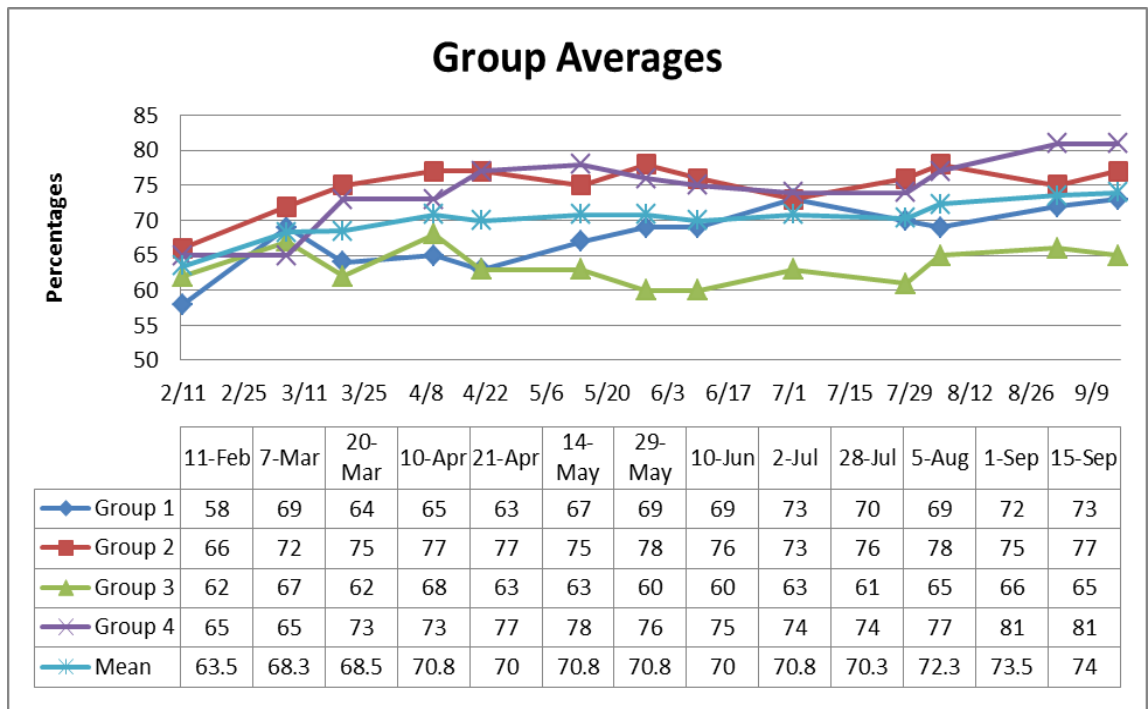


Figure 2. Group averages vs mean, (N=4).

Group 3 was my class during the reporting period. During the reporting period, we had several individuals that struggle socially and still do. My personal observations are that sex offenders tend to struggle socially and therefore often struggle with school due to the social aspects. This could account for why Group 3 had the lowest scores throughout the data collection period, and may indicate the lazy, passive aggressive, hurting, unsocial behaviors discussed previously. Group 4 has the overall high scores through the entire data collection period; however Group 2 is also very close. Group 4 is

the female group and is often higher score average value than the rest of the groups during the data collecting. When going back to the original data, I wanted to look at how the overall scores of the groups in academics compared to the four groups listed above. I thought those who scored higher on the figure should have higher educational scores as well. The four groups listed were selected from the seven groups that took part of the survey. When looking at these group percentages, I am able to see that there must be some correlation between how students run their PPC program and their academics. The scores can only get higher overall if both sections are improving, not just one. Each group's scores for academics and program were averaged together and placed in the appropriate rows below for the survey date. This was done to find where the whole group scored and then compared to the table below to show how the whole group was functioning together. The values were then placed as an average in percentage form.

Anytime a group falls below the mean line (light blue/star like data points), I would suspect that the group would be classified as a Limit Testing group. In the paragraphs following, I will test that hypothesis with data from Table 2. Most interesting was Figure 2 showing that Group 3 has overall the lowest percentages almost the entire time. This may indicate or validate what many staff on campus believe is true—sex offenders may tend to be more passive aggressive, lazy, and, therefore, remain longer and tend not to show fast improvements in program or education. During the data period, the sex offender groups may be very comfortable with the bare minimum of success of 60%'s.

Table 4
Grade Averages from Survey per Group, (n=7)

Group	2	4	7	8	9	11	12
School Grade Averages From Survey	39	38	42	40.5	34.6	34	36
Type of Group	C	C	F	F	S	S	S

Groups 7 and 8 are our female groups and they have higher averages on their academics than the rest of the groups. This could mean that female groups tend to show faster improvements with the program and their academic achievement as well as show that females tend to have better values to complete school. A point to note is that all three groups that have sex-offenders all score lower than the rest. This again validates the argument that juveniles that might have sex-offences tend to be more passive aggressive/lazy towards program and academics. This supports my claim that how PPC affects academic results depends on the student and how they deal with the program, which closely relates to their behavior problems. The sooner students buy into the program, the sooner their scores will improve both academically and in their program.

Table 5 below is used to compare the stages of the groups to the percentages in Figure 2. My hypothesis is groups in Polarization will be very close to the same percentages, and groups placed in Limit Testing or PPC will also be close to the same percentages. I feel it is helpful to hypothesize this because as a teacher, I would be able to know how to use situational leadership to maintain an orderly classroom during the different group stages.

Table 5

Group Stage, (N=4)

KEY- C-Casing, L-Limit-testing, P-Polarization, PPC-Positive Peer Culture

Group	Stage	2/11	3/7	3/20	4/10	4/21	5/14	5/29	6/10	7/2	7/28	8/5	9/1	9/15
1		P	P	P	P	P	P	P	P	P	P	P	P	P
2		P	P	P	P	P	P	P	P	P	P	P	P	P
3		P	P	P	P	L	P	P	L	P	P	L	P	P
4		P	PPC	PPC	P	P	PPC	P	P	P	P	P	P	P

This chart tends to be several weeks behind when support staff labels the groups.

This means that staff takes time to observe behaviors with consistency before they are able to label the students' current behaviors. Therefore, when Group 4 is PPC during March and April, the group was probably high polarized or PPC during the first six reporting points. Immediately, I am able to notice Group 2. I was able to see that their group's support staff had placed them in polarization the whole time during the reporting period. During training at our facility, it is stated that most groups will spend a majority of their time in polarization. This is easily evident in Table 4 and Figure 2. This trend also can be seen with the other two groups in this table. After producing these results, I had the opportunity to discuss with Group 4's core teacher. She mentioned that she and the group leader do not like putting their group into PPC for many reasons. Typically, they like to leave room for improvement for the group and placing them in PPC leaves the group controlling all issues and problems with very little interaction with staff and the only way for students to go is down. Also, placing a group in PPC stage means that other groups tend to attach negative students to this group when major issues arrive. This might explain why some of Group Four's scores are high in both areas, but are still in the polarization stage.

A core teacher also helped me to make sense of some of my data, since it did not quite follow what I hypothesized. I hypothesized that the higher a group was in the behavioral stages that their academic numbers would also follow suit and grow. As shown above, you can see between the last two groups that is not what occurred. Group Three falls into Limit-Testing three times during the reporting period yet their scores do not drop. Group Four goes the other direction according to their team and becomes a PPC group yet their scores dropped. I wanted to know why there was this inconsistency. There is such a small N number that one student can make quite a difference in the group averages is one possible explanation could be that a large number of students may have been released or gone home during or right after this data plot was made. However, I noticed I failed to keep track of when students entered and left groups and for what reasons they left. I also failed to track students' completion of a High School Diploma. My data points changed depending on group and my availability. Some students are released without staff knowledge or prior warning and this can have consequences for the rest of the group that build bonds with the student. Group two's core teacher also stated that staff is usually several weeks behind on the group's values. The reason she stated was it takes staff several weeks to see a trend (consistent) behavior before the staff is able to label and deal with the group's behaviors appropriately. However, group behavior can fluctuate depending on different variables throughout the day. She felt that Group 4 was probably classified as PPC for the first half of the reporting period, but it took staff several weeks to identify different behavior trends within the group.

I then wanted to collect data on how students' progress improved and declined

during my data collection period. I tried to pick students from these three groups that had several different data points for the six months to see their progress through the period. I hypothesized that students' scores will rise and fall together throughout the data collection period.

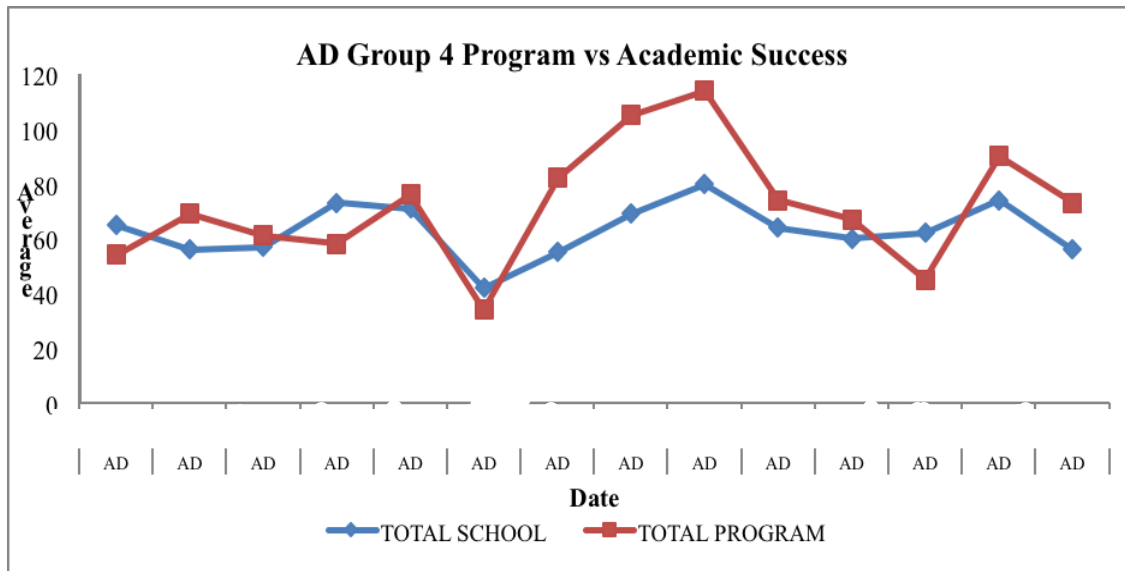


Figure 3. AD Group 4, program behaviors versus academic success, (N=1).

My coding system implies that AD stands for the students initials in Group 4, AD Group 9 (AD9) was at our school the entire reporting period. AD9 was moved into a new group two months prior to my data collection with a total stay of at least a year. The data points above show the averages of student AD9 and his behavior in the classroom and in program. These points were referenced from the surveys listed in the methodology section above or Appendix (A). These values were on a scale of one to ten rated by peers and staff's values of student AD9 during the sixth month window. AD9 is a sexual offender with some conduct disorder issues.

I noticed a trend between AD9's behaviors in program and how the data points

nearly mirror the total school line. Especially around May, this student had a regression in both behavior and academics. The student quickly recovered and we saw his behaviors and academics improve. In a polarization, a student will go back and forth between negative and positive values. Around July, we started to see AD9 begin to regress once again with behaviors and academics until middle of September. It was interesting to see that when one sees behaviors drop, so does academics.

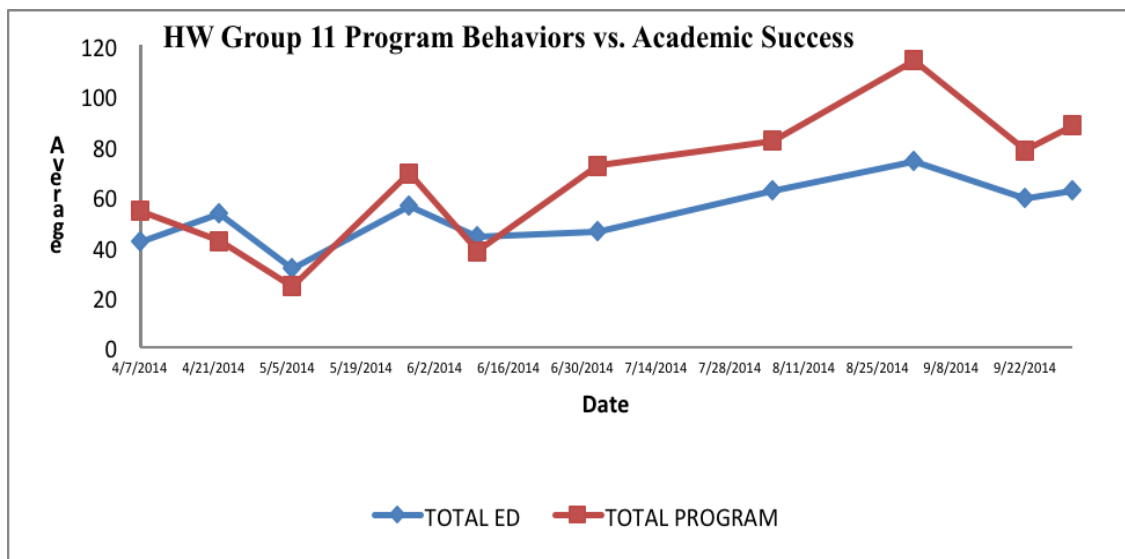


Figure 4. HW Group 11, Program behaviors versus academic success, (N=1).

Again, using the surveys in Appendix (A), HW Group 11 (HW 11); (HW is the student initials in Group 11, which refers to my coding system); is one of the students in the group I work with at Juniper Hills High. HW11 began his stay April 1st, 2014. Much like the graph above, we can see how closely the data points listed in HW11's program mimics his performance in his academics. Both lines peak and bottom out together during the data collection period. This strong correlation shows that PPC and academics do affect each other in both positive and negative times. Both Figure 3 and 4 show similar tendencies where the student behaviors in the program mock the effort towards their

academics. When one aspect of their program is failing, it is easy to see that the other is close behind

I was unable to see whether program or academics initiates an effect on the other but using the student open ended questionnaires shed some light on the subject. Figures 3 and 4 could mean that program and education have a lot of similar aspects and do rely on each other here at the facility. Interestingly both graphs have a dip almost around the 3rd to the 4th month. This could refer to what staff at Juniper Hills High School calls the honeymooning state. Using this information; I am able to determine which leadership PPC styles to use depending on the student's stage and how to interact with the juvenile.

The open ended questionnaires (Appendix B) indicated that many students agreed that program motivates them first and creates new value sets that become important to them. When students were asked how program helps them do better in school, some responses were as follows:

“I have grasped the concept of just how important an education is and will be for my success” (Student in the program 18 months), “it helps me feel good about furthering my education, instills values of honesty and integrity to prevent cheating on school work, and helps me stay focused” (Student in program 4 months), “I think that the program has really strengthened my self-confidence and that has given me more assurance that I can accomplish my educational goals and I am more active when it comes to school work and I now enjoy helping my peers succeed as well”, (Student in program 7 months).

I found all of these quotes from the students refreshing. The quotes talk about new values and lifestyle changes these students have made using PPC and related it back into their academic successes. Just the four students above talked about better self-esteem, positive values, and the wanting to achieve an education to be proud of. The remaining 32 student surveys I collected on the open ended questionnaire reflect the same sentiment. All the students discuss how PPC has allowed them to change their thoughts and values on their education.

Sub-question #1 Data and Analysis

I used the instruments listed in the methodology section to answer the question, “How does problem solving in the PPC program help students process and work through the scientific method?”

I began giving each of the eleven juveniles that were selected by their teachers a pre-test to see where their content knowledge of science is currently. I required that the students that participated had entered the facility right before this data collection period (Jan- March). I had each student attempt to complete a pre-survey (Appending G) to determine their willingness and thoughts on how possibly PPC and the Scientific Method could work together to improve their overall life. Along with the pre-test, students were given an additional pre-test on science questions and were asked to attempt to answer them to the best of their abilities.

The student’s overall attitude towards the scientific method and Positive Peer Culture is that most of the students noticed and stated that there were some similarities, but at least three students could not make the connection between the problem solving.

During implementation, I started with at least four to five daily lessons throughout the week that I sent to the teacher as PowerPoint slides to give to the students. Many of the students were inaccessible because their core classes were during my core class. Student directions were to attempt to understand the slides to the best of their abilities, and they could receive help from their peers or teachers, if needed. Within the first three weeks, problems began to arise. Teachers began to approach me stating that their juvenile was spending more than 30 minutes on the daily lesson (usually containing 3 questions that asked students to problem solve). The student in my classroom was also showing these behaviors as well. He would begin on the subject and would spend over 30 minutes answering questions. Some examples of questions were:

“Suppose you own a music store. Given what you just learned about taxonomy, Please describe in detail how you would organize your CD store.”

Due to teacher’s complaints, I began only sending out one daily lesson a week. Unforeseen circumstances began to interfere with my prep hours. My group began to take a downfall. Starting at the end of January into February, my class and cottage began to have a lot of session, restraints, and other safety and security risks that began to take over normal class period time and my prep time. This also affected my ability to make time to create and send out daily science lessons to the other teachers.

During March, I had teachers approach me once more about the daily lessons and telling me that they have stopped using the lessons or have found them to be such a big distraction in their classroom. I reached out to my classmates and professor on what I should do. I then implemented a survey (APPENDIX F) to find out where teachers

opinions and thoughts stood on this implementation. At the end of the implementation, I asked teachers to fill out a survey (Appendix I), (n=8). The results of the survey (Appendix I) was that all the teachers liked the journals. The teacher mentioned the journals with the higher order thinking were implemented with success when dealing with the common core standards. Common Core are the standards to which we use to build our science curriculum. , One teacher felt it did help organize student's thoughts to help the improvement of the learning process. Teachers were also able to state what they did not like about the science journals. Many felt that the time it took students to do these journals was much more than the 30 minutes I had originally asked teachers to set aside for them. This varied depending on the juvenile and their IQ/IEP status. Many teachers discussed how these journals "distracted the rest of the class and had a difficult time reading the students hand writing in the journal" (Teacher of student journal number 2). I also experienced both of these issues with my student. It was nice to see my student begin to feel confident in new areas of problem solving and in areas of PPC, but these journals began to take over other important assignments in the core class. I really struggled not getting involved with my student, like a normal science teacher would. I tried many times to let the group help him first, which then lead to other students getting off track in their school work. Five teachers gave advice if I were to implement this type of journaling again. I was asked to provide better instructions or be there with the student when the student is attempting the assignments. Another great idea was to implement foldables (which could be as easy as gluing a chart into the journal or creating a vocabulary chart

by cutting the journal page in a certain way to allow for studying) and create a more appropriate time frame for students.

I did have some data from my students during the time that I implemented the science journals that focused on higher order thinking skills. I took the pre- and post-survey (Appendix G) information from the students and compared their opinions on how confident they were if asked to problem solve (Figure 5).

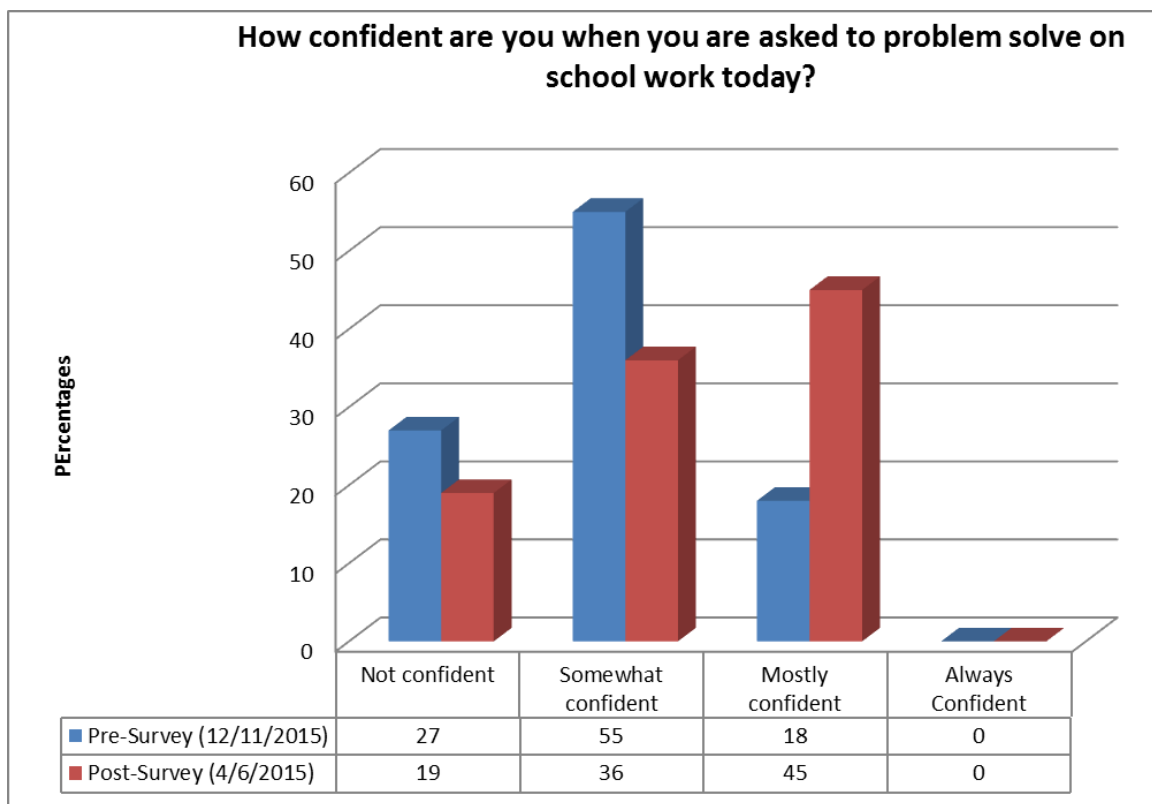


Figure 5. How confident are you when you are asked to problem solve, ($N=11$).

During the term, students became more confident in their problem solving abilities and felt that they were more confident in problem solving on their school work. I found it interesting that no student in either survey picked “always confident”. I think this

might be because students might have been confident, but still felt their science knowledge was low.

Overall, even with all the struggles, I believe these journals were successful, but would be better suited for my own classroom or with students I could reach on a daily basis . This would allow me to teach particular lessons to the students and to answer any clarifying questions to a student in need. This would also allow me to monitor and improve my slide shows and questions for the science journal making the questions within the journal more higher order processing skills and to change things (e.g- rewording questions). This would help students so they can understand what is being asked of them without stepping out of their zone of proximal development.

INTERPRETATION AND CONCLUSION

Main Action Research Question

When I started collecting data for this research, I had been at Juniper Hills High School for little over a year and half. I was still very new to the overall concepts that Positive Peer Culture (PPC) teaches. I wanted to see how academics and PPC worked together to improve the students' overall life and social skills, and to prove that these two things needed each other to work. In response to my action research question, it was found that there is a strong connection between how students do in the PPC program and their academics. In relation to my data, I was able to show that a student's overall scores on the education/program survey rise and fall together (see Figure 2). With the surveys I conducted I have shown that PPC and academics rise and fall together when a student succeeds or struggles in program or academics. The PPC program is still most important

because this is how students deal with issues and problem solve. When students begin to fall in PPC then students' academic scores also begin to drop, therefore, it is important to note that my ability to run PPC properly in my classroom will drive my students to success. If I remain weak and unwilling to improve my skills, my students will suffer due to my inability to run PPC efficiently. An issue that I am currently running into in my classroom is trying to help students who are being used to cover up other peer's problems in the group. Efficient use of PPC would call for me to recognize these hurtful behaviors and question, relabel, and reverse the responsibility back onto the individual that is hurting the other. Thanks to this project and the research obtained, I feel I have grown in my abilities as a teacher in PPC, but recognize I still have a lot of learning to do. I often struggle with noticing hurting behaviors when the behavior is subtle or covered with a "helping" or "caring" tone. Improving my abilities would call for me to question the behavior. I still struggle with wanting to jump in and solve the issue myself, instead of building up my students to handle the situation themselves.

There are a lot of things I would like to have done after completing this research to make my data more valuable and informational. One item would have been to ask the teachers to explain why the team had decided to place the group in the stage listed for those two weeks. This would have generated a good discussion during the data collecting that could have helped me understand better what was happening with different groups on campus.

During my data collection period for the student teacher surveys (Appendix A), I did not keep track of students who left and the different circumstances that may have

caused them to leave (e.g. student aging out or being sent to jail). Eventually, students age out of the system or show no more signs of improvement, but still show risks to the community and cannot be returned home. The number of students who do not earn a release would have been interesting to see because, from my observations, there seems to be one student in this situation in every group. It would have been nice to interview the students to try to understand how to motivate and help them become successful in program.

I would also have liked to chart how many peers graded on individual peers and who they were. I feel that I could have paid attention to see if peers were lying on scores and if the same peers were always grading the surveys. I have yet to look at all of my groups compiled together based on their current time at our facility. Since my data collection was done between February and September 2014, many of the students who were surveyed have been released back into the community.

My sub-question was “how does the teaching of problem solving skills in Positive Peer Culture (PPC) affect academics in the scientific method?” I am disappointed in the implementation and data that was collected for this sub-question. I learned that this technique did not work for the students participating in this data collection. However, I could see using the journals in my classroom with my own students in Biology or Earth Science. I agree with the teachers to incorporate activities such as foldables that can make the journals a little more attention grabbing than just writing in a journal.

While many teachers liked the idea of the higher thinking journals for our students, however, the idea would have been better carried out with a science teacher

present. Since the implementation, my principal has seen the importance of all teachers being able to have endorsed teachers available to help those who do not understand a subject well. I am able to help six different groups during my prep hours if students and their peers cannot process through a situation. The science committee has begun to assign teachers to groups who did not have a science teacher in their pod (two cottages grouped together). This has allowed all teachers the ability to access a science teacher and other core subjects throughout the day. Our principal has also approved the ability of teachers to switch groups, so students can receive lectures on the difficult content knowledge they need.

A common problem I saw was that teachers did not have time to do the journals with unmotivated students. Our students have approximately 60 hours to earn a credit, which is the minimum for seat-hours. Many of our students struggle and are far behind in school and take additional time to finish certain core credits depending on their zone of proximal development. The journals could count for lab exercises students will have to do, but without a designed curriculum, the students that participated lost time in their other core credits during the semester because the assignments were not aligned to any particular curriculum.

VALUE

The values I received from this project are remarkable. I started with my Master's degree with Montana State when I was around my six-month mark working at Juniper Hills High School. Positive Peer Culture (PPC) was still very foreign to me, and I struggled heavily trying not to be the authoritarian. I choose how PPC affects academics

because I could visually see changes in my students in their program and those tended to coincide with their successes in academics. As time went on with my Master's program and the more I learned and focused on PPC, the more I grew as an educator and achieved success in my job.

One of the biggest values I take away from this project was from the surveys I conducted with my own group during my data set. I began to look more at the positive things my students did rather than the negative. It is very easy to focus on the negative in the environment I work in, except this is not what the students need. In every bi-weekly survey, I noticed growth or decline within my students before I even entered the results into the computer. This was a nice visual to know what strategies to use with each student (limit testing, casing, PPC, or polarization strategies). This set of values really put the connection of how program fits within academics. These two are so enmeshed that they are difficult to separate. I was more data driven, especially when the data focused on the positive behaviors students were showing.

Another reason I picked this topic was to teach my fellow coworkers at our facility on the importance of having PPC in the classroom. Several times a month, we (in education) tend to hear cottage staff say that education does not run program. This often creates disputes between cottage staff and education staff. I am not the exception but, as I have grown with this project, I have grown with my team and strengthen the knowledge that both program and academics need each other. My goal is to present this after I have completed my Capstone and provide training to any staff that I am allowed to teach and

show how we can all work together. The importance for the students is to learn and grow with life skills and at academics is one of the most important life skills.

I might not have spent time tracking how this capstone changed my teaching, but this capstone alone has impacted my teaching severely. The entire program has taught and changed my perspective on all things at my facility. The last two years has changed my entire teaching philosophy and style. Thanks to my professors I took a deeper look into what I am doing on a daily basis and how to be more successful....relating education to students PPC program.

REFERENCES CITED

- Blomberg, T. G., Bales, W. D., & Piquero, A. R. (2011). Is educational achievement a turning point for incarcerated delinquents across race and sex? *Juvenile Youth Adolescence*, 41, 202-216.
- Burns, A., & Darling, N. (2002). Peer Pressure Is NOT Peer Influence. *Education Digest*, 68(2),4.
- Chan, S. M., & Chan, K.-W. (2013). Adolescents' susceptibility to peer pressure: Relations to parent-adolescent relationship and adolescents' emotional autonomy from parents. *Youth & Society*, 45(2), 286-302.
- Davis, G., & Hoffman, R. (1988). Self-concept change and positive peer culture in adjudicated delinquents. *Child & Youth Care Quarterly*, 17(3), 137-145.
- Garner, H., (1982). Positive Peer Pressure Programs in Schools. *Schools Programs for Disruptive Adolescents*, ed., 326.
- Gartner, Audrey. Converting peer pressure. *Social Policy* 27.2 (1996): 47+. *Academic OneFile*. Web. 27 Mar. 2014. base for positive peer culture. *Reclaiming Children and Youth*, 19(2), 37-41.
- Quigley, R. (2007). Roots of positive peer culture: Harry Vorrath- the man and the myth. *Reclaiming Children and Youth*, 15(4), 207-209.
- Roffers, D. W. (1975). The Development of a Model for Implementing the Positive Peer Culture Program in an Inner-City High School. Ph.D.diss.,University of Minnesota. *Dissertation Abstracts International*. (9-A).
- Vorrath, H. H. (1985). *Positive Peer Culture*. New Jersey: A Division of Transaction Publishers, Rutgers- The State University.
- Uslu, Mustafa. (2013) Relationship Between Degrees of Self-esteem and Peer Pressure in High School Adolescents. *International Journal of Academic Research*, 5, 119-124.

APPENDICES

APPENDIX A
STUDENT STAFF SURVEY

*This survey is voluntary and participation or non-participation will not affect a student's grade, program, or class standing in anyway.

Group #					
Today's Date					
Student Initials		Entry Date		Total Months	
School				Student	Teacher
Stays on task					
Completes homework/test assignments in a timely manner					
Completes homework with 80% or higher (10- 100%, 9-90%, 8-80's)					
Completes tests with 80% or higher (10-100%, 9-90%, 8-80's)					
Gives and accepts help academically					
How many credits did this student earn in the last two weeks?					
Program				Student	Teacher
Shows care and concern					
Currently working on individual treatment plans (JSAT, VOICES, Staffing goals, etc.)					
Has shown they can deal with their priority problems in a positive manner					
Displays positive decision making after exploring alternatives					
No major problems shown					
Gives and accepts help in program (seeks help on problems, trying to improve self)					
Consistent with program					
Handle responsibilities without staff interventions					
Working on verified placement and family relations					
Working on RPP (10-- all completed with ALL signatures and ABOUT to be released)					

Example Score:

1- I never do this or have not started/ NEW PEERS

2-3 Negative- (insert behavior) it fits my needs and I don't care who I hurt

4-5 Negative- (insert behavior) it fits my needs, but starting to realize how it hurts people

6-7-Positive- I do this when it fits my needs, but I am starting to stop hurt people in this way and succeeding

8-9- Positive- I do this because I don't want to hurt people and I hardly ever hurt people in this way

10-I always do this and always follow through

APPENDIX B

PRINCIPAL EXEMPTION FORM AND IRB EXEMPTION

Administrator Approval

I, Randy S. Stocking, Principal of Juniper Hills High School in St. Anthony, Idaho, verify that I approve of the classroom research conducted by Alyx A Demers.

Randy S. Stocking, Principal
(Signed name, Title of Position)

Randy S. Stocking
(Printed Name)

10/1/14
(Date)

Administrator Exemption Regarding Informed Consent

I, Randy S. Stocking, Principal of Juniper Hills High School in St. Anthony, Idaho, verify that the classroom research conducted by Alyx A Demers is in accordance with established or commonly accepted educational settings involving normal educational practices and that I approve the project. To maintain the established culture of our school and not cause disruption to our school climate, I have granted an exemption to Alyx A Demers regarding informed consent.

Randy S. Stocking, Principal
(Signed name, Title of Position)

Randy S. Stocking
(Printed Name)

10/1/14
(Date)



INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165

960 Technology Blvd. Room 127
 c/o Immunology & Infectious Diseases
 Montana State University
 Bozeman, MT 59718
 Telephone: 406-994-6783
 FAX: 406-994-4303
 E-mail: cherylj@montana.edu

Chair: Mark Quinn
 406-994-5721
 mquinn@montana.edu
Administrator:
 Cheryl Johnson
 406-994-6783
 cherylj@montana.edu

MEMORANDUM

TO: Alyx Demers and Walt Woolbaugh
FROM: Mark Quinn, Chair *Mark Quinn CJ*
DATE: October 8, 2014
RE: "Does the Application of the Positive Peer Pressure Program (PPC) Change Academic Performance?"
 [AD100814-EX]

The above research, described in your submission of October 3, 2014, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

- X (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
- X (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.
- _____ (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
- _____ (b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.
- _____ (b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.
- _____ (b) (6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

APPENDIX C
STUDENT QUESTIONNAIRES PART 1

Directions:

You're answers are voluntary and confidential. Participation or non-participation will not affect a student's grades, program, or class standing in anyway.

Please answer these in complete sentences. If you need to type the answers instead of handwriting them, I am okay with this.

Please keep asking yourself: why do *I do this*, why do I *think* this, what makes me *feel* this way. Most of these will be answers of a paragraph or more due to the amount of detail you will put into your answers.

I (Ms. Demers) cannot learn anything if you do not give examples or reasoning behind your answers.

Thank you again for all your help!!

Miss Demers

1. What motivates you to participate in PPC program and become a more caring young adult?
2. Have you ever done anything like this before? If so when?
3. What are the current obstacles/challenges from keeping you from participating in program?
4. What motivates you to participate in program in the classroom?
5. What could I do to help this out?
6. Is there any issues on the "outs" that distract you from achieving success here in the classroom, as well as in program? The more you can tell me about this, the more I might be able to help you.
7. How does your teacher help you understand the PPC program? Can you give me some examples?
8. What are ways your teacher can help you better understand the PPC program? Can you give me some examples?
9. How do the skills taught in the PPC program prepare you for life on the outs? Can you give me some examples?
10. How does the program help you do better in school? Can you give me some examples?
11. Any other suggestions or ideas?

APPENDIX D

TEACHER PRE-SURVEY PROBLEM SOLVING

* Required

Please enter student's journal number *

How confident is your student when asked to problem solve in PPC. *

- ☐ Not at all confident
- ☐ Somewhat confident
- ☐ Most confident
- ☐ Very confident

Please state why you gave the student this rating.

How confident is your student when asked to problem solve on assignments?

- ☐ Not at all confident
- ☐ Somewhat confident
- ☐ Most confident
- ☐ Very confident

Please state why you gave the student this rating.

On a scale of one to ten, where would your student rate on their ability to problem solve in all areas today?

1 being low...10 being high

APPENDIX E
TEACHER EVALUATION

* Required

Please describe what you like about these science journals in terms of higher level thinking? *

Please give two TOP reasons.

Please describe what you did not like about these science journals in terms of higher level thinking? *

Please list your top TWO reasons with discussion.

What changes have you implemented for your students with these Science Journals? Please be specific by giving an example. *

Do you feel that these helped or hurt your student? Please describe in detail, and give an example if possible. *

Comments, Concerns, Questions? *

APPENDIX F

PRE AND POST SURVEY STUDENTS

Time Stamp

Enter student code that you received from Ms. Demers

Enter the Current Date

How confident are you when you are asked to problem solve on school work?

Please describe how you problem solve in Positive Peer Culture.

Please describe how you problem solve using the scientific method.

Do you think there is anything in common between problem solving in PPC and the scientific method?

Learning PPC has helped your ability to problem solve life problems. (T or F) Please explain your choice?

Learning the scientific method have given you the ability to solve life problems. Please explain your choice.

Please describe how PPC has affected your problem solving abilities (positive or negative).

Do you think daily science lessons will help you build your ability to problem solve?

How confident are you when you are asked to problem solve using Positive Peer Culture (PPC)?

APPENDIX G

PRE-SURVEY--PPC AND SCIENTIFIC METHOD RESULTS STUDENTS

How confident are you when you are asked to problem solve on school work?	Please describe how you problem solve in Positive Peer Culture.	Please describe how you problem solve using the scientific method .	Do you think there is anything in common between problem solving in PPC and the scientific method ?	Learning PPC has helped your ability to problem solve life problems.	Please explain your choice.	Learning the scientific method has given you the ability to solve life problems.	Please explain your choice.	Please describe how PPC has affected your problem solving ability (positive or negative).	Do you think daily science lessons will help you build your ability to problem solve?	How confident are you when you are asked to problem solving using Positive Peer Culture (PPC) ?
Some what confident	I use problem solving in this area for the que, check, session for problems which means I give them a friendly confront first, then if that peer shows the behavior again I confront it again, but ask them to be accountable	The scientific method is used to find the answer to a problem using data and observation to get a solution.	Yes, because they both are used to solve problems in society and in science . They gather information and use them to get a solution or to help someone else out.	Strongly Agree	The system has taught me to help see not only the problems I have, but the problems that others have and help myself and them change that negative behavior into a positive behavior and not to have those	Strongly Agree	I need information in order to help myself and help others if they need help with behaviors affect them or myself negatively.	It's affected it in the following ways positively its helped me realize that I am at fault for bad behaviors not otherwise and that authority figures young or old are not out to get me	It could, but I'm not sure right now it would help me but I'm sure I will find out sooner or later (hopefully sooner)	Some what confident

	ble and if the peer stands out of check you call a helping session to help the behavior .				bad habits control my life.			and that I can help others and myself change my negative behaviors and others if they're willing .		
Some what confident	I problem solve by talked it out if not doing something about it.	IDK	IDK	Agree	IDK	Disagree	IDK	It hasn't	Maybe	Some what confident
Not confident at all	Being assertive but not rude. Don't yell or make them feel low. Help that person view it as help not hurt.	Be respectful to that person. Help them find positive solutions.	No, because they are the same concepts and teach the same thing.	Agree	Yes it has because it gives me more ways to solve problems	Agree	yes it has because it gives me difference and maybe more helpful ways to solve problems.	It has helped me have a different outlook on problem solving .	Yes because it may show more way solve problems.	Some what confident

Most confident	I try to use "I" statements instead "we" or "you" statements then I brainstorm with my peers. Last, we (me and my peers) decide which one we use.	I use the scientific method for problem solving by using "if, then" statements. I then think those statements through. Last, I decide which one to use.	Yes, there is the last two sentences that go together, but other than that there is nothing else they have in common. One question asked about PPC and the other asked about the scientific method.	Disagree	PPC really doesn't help me control my emotions. Plus, I don't really know what PPC is. Also, I feel I can't get along with my peers.	Agree	The scientific method helps me control my emotions better than PPC. Unlike the other one, I know what the scientific method is. Plus I feel this helps me be okay with my peers.	PPC has affected my problem solving ability in a neutral way because I didn't know what PPC was before I got here. It's helped me in a positive way because I now know a few new social skills, but it yet hasn't helped helped because I try to use the new social skills, but they don't know.	Yes I do because with the scientific method I can easily control my emotions, but with more knowledge I wouldn't blow up easily so I think it is a good idea.	Some what confident
-------------------	---	---	---	----------	--	-------	--	--	---	---------------------------

Some what confid ent	How I problem solve in PPC, I use the cue, check, and session techniqu e. I also try to mediate confront ations with other peers when they begin to argue. That is when I have the courage and confiden ce to do so.	The scientif ic method helps me proble m solve by gatheri ng inform ation and details to get a solutio n and solve the proble m. I also may use the scientif ic method when I cause a proble m and try to look for a better solutio n more positiv e outcom e.	To me scientif ic method and PPC are the same thing, and they both support each other becaus e of the same techniq ue. They both have and how they both can benefit me in life and live a more happier and confide nt life as well.	Agree	It has helped me by seeing what exactly I have trouble ms with and helps me be account able for my behavior s, as well as looking for better ways to deal and solve my problem s appropri ately.	Agree	I feel the scientif ic method helps me solve life proble ms when I make an observ ation about a certain situatio n and try to figure out ways how to deal with that situatio n and try to find/m ake a valid conclu sion (a positiv e outcom e) for the situatio n.	I have learned what proble ms I am causin g and how I can fix them. I have also learned that PPC will benefit me in the long run. I can use PPC now to identif y where I maybe going wrong and do my best to fix the behavi or, I can even be able to look into things that I could do better at.	I feel scienc e lesson s would help me build my ability to proble m solve becaus e for me, I feel learnin g about scienc e will help me build my PPC in the same time. Scienc e to me is the thing that builds up the PPC.	Some what confid ent
-------------------------------	---	--	---	-------	--	-------	---	--	---	-------------------------------

Not confid ent at all	I would confront the behavior . Then when they say no or come off the concern I will not take that further. When I do follow through I shut down or blame.	I don't know	I don't have enough t inform ation to answer this questio n.	Agree	Because PPC helps you make sure you are being positive. It helps you say no. It also helps with your confiden ce.	Disag ree	I know that the scientif ic method solves with certain things not life proble ms.	It has helped my confid ence. PPC has also helped be able to say no when I feel like I need too. It also helped me be more positiv e.	Yes becaus e there maybe some value that correct s scienc e to progra m. Scienc e may be helpfu l to me and some of my peers to relate progra m to scienc e. I would like to be able to help my peers with their proble ms.	Not confid ent at all
--------------------------------	---	-----------------	--	-------	--	--------------	--	---	---	--------------------------------

APPENDIX H:
TEACHER CONSTRUCTIVE IDEAS ON PPC WITH SCIENTIFIC METHOD

Please describe what you like about these science journals in terms of higher level thinking?	Please describe what you did not like about these science journals in terms of higher level thinking?	What changes have you implemented for your students with these Science Journals? Please be specific by giving an example.	Do you feel that these helped or hurt your student? Please describe in detail, and give an example if possible.	Comments, Concerns, Questions?
The students are give an opportunity to write down what they know vs. multiple choice. Makes the students describe what they have learned so that you can see what areas they may still need more work on to learn concepts.	It does take longer to grade them. some students hand writing is very hard to read. Some students were less than motivated to participate in this and there work really showed the lack of investment.	Non but actually quite a bit, I was part of a Teaching American History grant that thought some of the same concepts which I had ready implemented into the history curriculum and the Science Teachers have also been putting these strategies in place with in the Science curriculum.	One student really got into it. He made good use of the Journals which has improved his writing and his self-esteem. He was not afraid to write down ideas that might be seen as strange as a result his understanding increased.	I thought they were good activities that helped my students.

They helped the student to think differently about the material.	They seemed to take longer than 30 minutes to finish.	I made sure the group was aware that the labs needed to be finished by a certain time, otherwise they would not have been completed.	I do think the labs helped the student think question what he knew about the science curriculum. He would ask question to help him understand what was being asked multiple times.	None
They help build their knowledge in the science curriculum.	It would distract the rest of the class while they were being worked on.			
The science journals help my students think their way through problems and challenge their way of thinking.	Some times it was hard for them to understand and it took too long for them to figure out what they needed to do.	I think that there needs to be better instructions.	I think they helped my students to think through the problem rather than just scan through the material and find the answer.	nothing
The science lessons were great. They were interesting to the students and I think they learned a lot from them. Having the students write notes and answer the questions helped them remember	I would have liked to see foldables and figureic organizers in the science journals. Sometimes a blank page is intimidating. Structuring the information using foldables and figureic organizers really helps.	I am confused about what this question is asking. I haven't implemented any changes. Or I am not sure what this question is asking.	They definitely helped my students. Any time science lessons are available to students in such a concise and interesting way, the students benefit.	I am glad my students participated in this.

better. It gave them a place to organize their thoughts, which helped in the learning process.				
They had good questions that did not have set answers.	Some of the questions were too hard for some of the juveniles on IEPs.	I have not implemented any changes	This hurt my student. She felt very frustrated and being still fairly new to the program she shut down and had no desire to learn.	I think that this is a concept that might work in a regular setting such as public school, but not in a setting where the students are with one teacher for the most part of the day and especially if that teacher is not good at science.
They made the juveniles think.	I did not always understand what was being asked of the student so it made it hard to help them.			

The Science Journals were fair, but I would prefer a hands on lab to meet the learning needs of most of our students.	For most of our students a hands on lab is necessary for them to grasp the concepts. I actually provided some lecture and activities which completed this need.	For the Classification of Plants and Animals. I provided a brief lecture on Scientific Classification, and talked about other methods of plant classification. I culminated this presentation by having the students plant a particular plant which they were to identify and write a report about the charestics of this plant.	I think that the Science was a good spring board for further exploration of science concepts.	Thank you for the opportunity to be involved in this activity and survey.
The journals will give the students a chance to write down their discoveries.				

One- Really made students think about science as a whole and how it can help their real life situations.	One- My student spent at least an hour on it and never really seeked help from his fellow peers. He seemed interested in it, but really dragged it out.	I stopped giving them to my student daily and only started letting him write in his journal once a week.	I think it hurted my student along with hurt the group. It look him off task and caused him to miss a lot of school work on his other credits he was working on.	I think you had a great idea, Alyx. I just don't think the implemation worked here due to (not your fault), but unable to get around to all the groups every day. I think if you would of just done this with your group...the results would have been better.
Two- You spent a lot of time trying to show students how to problem solve and related it to the program here at the facility.	Two- It would of been better if you could of came around and taught the classes, but with the schedule and daily routine here at the facility....that is almost impossible.	I spent a lot of time working with the student one on one since he is only a 9th grader (behind in school with only a physical science credit).	I do think that it did help him realize what he is learning in science can be related in real life.	

	I also shorted the amount of time he could work on this and sometimes that didn't allow him to finish all three or four questions.	
--	--	--