

CAPE Veteran Partnerships (VETs) Report 2010-2011

[Measuring] the Seen and Unseen:
How the Veteran Units Foster Student Creativity

Author: Laura Paradis

Abstract: In recent years, creativity has been topic of increasing importance in the field of education. Chicago Arts Partnerships in Education (CAPE) requested that their Veteran Partnership Program explore this area in their work and through professional development. How CAPE staff facilitates professional development (PD), as well PD content, influences teacher pedagogy and curriculum in ways that support student creativity. Although this work deepens students' academic content knowledge and develops social-emotional skills, more evidence is needed to understand how students practice what is uniquely learned in this unit to other areas of their lives or to academics during school year.

Federal and local governing bodies, businesses, and esteemed individuals have all made the case for education reform – to move from the industrialized model towards one that is flexible and innovative. Despite the call for creativity in our schools, little has changed to address that obvious need. The limitations that keep students from exercising their potential to be creative, productive members of society still exist. Instead of asking students to build their own environments, they memorize types of plant life in textbooks. Instead of having students practice citizenship, they are asked to list the different branches of government and their checks and balances. Education at what is considered its best is still very segmented and often desk-based. As Ken Robinson, noted education advisor and creativity expert, quoted in his TED Talk entitled *Schools kill Creativity*, “Truthfully, what happens is, as children grow up, we start to educate them progressively from the waist up. And then we focus on their heads. And slightly to one side.”

The Veteran Partnerships addresses this problem by pairing teachers with professional artists to co-create a curriculum where students learn through artistic processes. Curriculum, however, is one effect of this change model. At the center of it is pedagogical change. Through CAPE's PD and experience with the professional artists (teaching artists), the Veteran Program's goal is to change teaching practice. Moving from traditional textbook based practice to one that encourages students to question and challenge, take risks, reflect critically, and to make connections between disparate subjects. Teachers can then positively impact students for many years to come.

When CAPE program staff decided to use creativity as a focus for the Veteran Program, creativity as a field was and continues to be developed outside of education, particularly in areas of psychology and business. These fields establish that creativity can be measured to some degree, the Torrance test being one of the most widely cited assessments; and that there are proven methods of innovation. For several years since 2007, CAPE UK studied creativity in their programs and determined observable indicators to describe what creative behavior was and how it unfolded. These studies widely dispel the notion that creativity only exists in unique individuals or that it merely 'comes from within.' Studying

creativity in the Veteran Partners, however, was new to CPS teachers and to CAPE, and thus presented a concept to push the work forward.

Data Sample:

In the year 2010-2011, CAPE provided funding, professional development and technical assistance to 20 classroom teachers, 12 teaching artists to co-create 18 distinct arts integrated units (in some cases several teachers work with one teaching artist on the same curriculum, segregating these as separate units makes 23 units total) for approximately 600 students. These teachers came from 10 different schools, their classroom grades ranging from kindergarten to high school.

The research methodology included qualitative and quantitative data from interviews, teacher and student surveys, online documentation, and PD planning notes. It is based on the model of action research, in which subjects who are researched participate as researchers themselves. Details of the methodology are found in the Appendix A of this report.

How is creativity fostered in Veteran Units?

PROFESSIONAL DEVELOPMENT IMPACT

Professional development sessions (PDs) have always been a hallmark of the Veteran Program. This year the program staff centered all PDs around the idea of critique. They found this practice integral to art making often lacking in the units, and wanted to emphasize its importance. Critique also represented one of the categories of creativity -- "Reflecting Critically". Thus, the program staff could focus on this practice without having to depart from the larger dialogue on Creativity developed over the last two years. In 2010-2011, four PDs took place, three in the fall, one in the spring, with the idea that partnerships could take the ideas from the fall and apply them to their units in the spring.

How professional development impacts the classroom and students, however, continues to be a conundrum in education. When the teacher leaves PD and returns to his/her classroom, what is retained? What is applied? Whenever value is difficult to measure, the practice is often placed under question.

What I have attempted to do in the below examples is demonstrate ways in which PD affects participants, and how that can impact students. Some examples demonstrate more linearity between these three areas than others. Namely because the links between experiences is not always causal, nor do teachers and artists always articulate them. However I can suggest, based on qualitative evidence of student behavior, teacher behavior, and what takes place at PDs, potential ways that PD translates to the classroom to foster creativity.

How CAPE staff facilitates professional development (PD) influences teacher pedagogy and curriculum in ways that support student creativity.

Several ways in which staff approach PD are listed below, with examples of classroom impact following.

1. There are no “answers”: Program staff explicitly plans activities within PDs to have no answers, and they explicitly communicate that to participants. The instructions given prior to activities are purposefully oblique, often times that participants will ask again, ‘What should we be doing?’ Staff typically does not give straightforward answers to these questions because the goal is to have the teacher and artist make decisions on their own, as that is what they will have to experience once they are in the classroom.

2. Participants driven, everything: Although each PD is outlined, program staff are more than willing to move off track if they find participants are still focused on a previous portion of the PD or cannot move forward. This is also made explicit to participants. The design of the following PD weighs deeply on the experience of the previous one.

As one example, a teaching artist quoted this in her interview.

And I still think it's good to be prepared and to have an idea of where you want things to go, but I feel like I was so rigid, and you have to stay on task, and always looking at my watch. And I feel like a lot of the PDs this year have really reinforced the goodness that can come out of being a little bit looser and flexible, and if a kid says something that's surprising and that you want to explore, take the time to explore it. (Interview, May 17, 2011)

Her teacher partner confirmed this with the below example

And even something that we had not planned on, Julie brought paint to sort of paint the board so that the poetry and the photography, that they really jumped into it with the colors representing the different moods that were in their poems. (Interview, May 17, 2011)

Spending time to explore how colors can represent moods turned out to be key for many students’ understanding about tone. In their qualitative surveys, a third of the students noted that learning about colors helped them understand tone. One student wrote, “It was explained how different colors signify different meanings such as passion and elation.”

3. Teacher/teaching artist developing their own language around creativity

Program staff decided years ago that the language of how Veteran Partners would explore creativity would have to developed, to some extent, by the teachers and artists themselves. PDs are designed to explore what the indicators mean through conversation and through experiences – such as co-creating artwork and critiquing artwork in groups. This is also central to the action research methodology CAPE espouses.

In the below example, a teacher and teaching artist respond to how redefining creativity impacts their classroom practice. The teaching artist discusses how looking at art with a teacher changes her perspective, and the teacher refers more specifically to work with her students.

And so, for example, when we went around and we were in groups at Columbia [Photograph museum] and we looked at pictures, that was helpful and it started a very interesting conversation between my group. And I think that just makes me realize, okay, it's the same then in the sense of when we're in the classroom together and we're team teaching, and how the teacher is going to see the student's work, and how I'm going to view it, and how they're going to point out things that I wouldn't have seen. (Interview, April 8, 2011)

Well, it's just helped me kind of [develop] questions, and it does help me kind of focus, I guess, what I'm looking for And now it's like, oh, are [students] asking questions, and are they responding in a very unique way... It's hard sometimes. When you're looking at it a certain way, you want it a certain way. And I kind of have to hold back sometimes and say, okay, you have to let them kind of explore so the final part where it says "reflecting critically on ideas and [creating] outcomes," that's really [helped] me quite a bit, just getting feedback I always have them kind of write about what they've learned or what they thought about things. And even during my social studies project I had them kind of give feedback to each other and how they thought about it, what they thought was unique. (Interview, April 8, 2011)

PD Content: What is presented at PDs influences how teachers and teaching artists support creativity in the classroom.

Critique, as the PDs defined, is not only something that happens at the end of a unit when a student shows his/her work and others comment on it. It is part of the ongoing creative process. In these sessions, teachers and artists were asked to invite feedback, incorporate, offer feedback, take an active role in analyzing work individually and in groups, to articulate the development of the process. They did this by having the teachers and artists look back at their work and responses from last year, rethink their inquiry questions, analyze artwork with and without context, and analyze pieces of work as an exhibition. These exercises represent the creativity indicators under "Reflecting Critically".

Even though many quoted they could not remember the exact activities from PDs, several more teachers attempted critique as a result. They molded the idea of critique to suit their curriculum and teaching style.

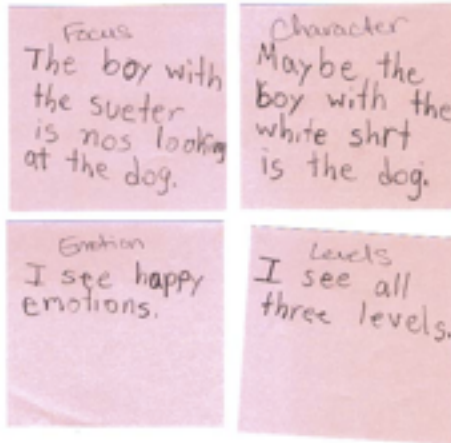
They'd write several tones down on the board and then the person whose poem it was would either pick one of those, or if it didn't identify their real tone, they would use one. So it was a form of interacting, but it didn't take it to the level of critiquing that I think the CAPE project wanted. But it was a way of sharing, looking at each other's work, reflecting on each other's work, presenting the work, so it was, in some way, critique. (Interview, May 17, 2011)

The images and text from online documentation below show how students altered their tableaux after receiving feedback.

Since we were really asked to look at reflection by CAPE this year we decided to integrate a short feedback session into most days lessons. The students at the end of this lesson provided feedback such as "I noticed Braulio used a very angry face." "Gavino's group was using three levels" "I couldn't see Oscar's face because Camila was blocking him with her arm." The students then incorporated some of this feedback into their future presentations. (Online documentation, 2011)



Pre-Critique Tableau (example 1)



Post-Critique Tableau (example 1)

Arguably, the more important student impact is the ability to discuss their opinions intelligently with other people. Since art can be interpreted in multiple ways -- why it is good or bad or of interest -- there are no 'wrong' or 'right' opinions. A teacher sums up the importance of such practice:

A lot of kids don't understand early on that having an aesthetic opinion helps to make you more of a cultured individual. So to get them to dialogue about art and give their opinions about what they like intelligently, it helps them to be more cultured. (Interview, May 18, 2011)

PD unintended impacts

There is not always a direct relationship between what program staff intends participants to learn and what happens in the classroom. The below example demonstrates how PDs can affect participants in unexpected ways.

This PD in particular focused on the kinds of questions to help a teacher or artist look at student work more closely. Participants in groups looked at student work on display and wrote questions about the piece, with and without context of curriculum. A piece of student work reminded the teaching artist of another way to approach art making – using multiple perspectives to explore a single concept. This idea also significantly shaped the curriculum and student creativity in the unit as a result.

...We looked at [individually student painted] branches [that formed a tree] ...And it was really just this idea of, like, you have one thing and everyone's approaching this one thing differently, you know, that really...for me, you know, like as a visual artist, you're always doing that anyway.... And I think it was that PD that really, like for me, really helped me kind of organize some of my ideas as to I wanted to do in the class.

... And I think this time around, at least this year, it was really helpful to have the one theme and then approaching it through all these different [factors] to kind of create a really rich experience for the students as far as the different ways that you can create work through one theme. (Interview, April 14, 2011)

The below are images of students working through the different media to express their ideas.



Looking at various artwork that deals with migration.



preparing their collaborative spoken word.



students creating a tableaux to identify the artists choices in composition.



student creating a collage to represent with spoken word piece.

Based on this method, the teacher draws a comparison between this year's unit on arpilleras and another unit several years before on arpilleras. Practicing multiple media this year helped strengthen the students' message in their artwork even though students were not able to perfect a technique.

Last time they were [the arpilleras] were more...nice. They were more finished, more aesthetically pleasing, I guess you could say, more of them, ___ not all of them, then or

now. But they weren't as rich in what the students were feeling. (Interview, April 14, 2011)

Outside the PD impacts described above, additional ways in which PD transfers to classroom practice surely exist, but they were not articulated or as clearly visible based on the data this year. When discussing this question with program staff, several asked whether or not participants were able to articulate what they had learned and applied. Although this report focuses on the action completed (whether or not it was explicitly stated) the question is important in the larger sense of art education advocacy and practice. If teachers can only create the experience but not articulate it, can they advocate for this type of education to take place? To add further complexity, there are teachers who can articulate the pedagogy but fail to actually practice.

ADDITIONAL CONDITIONS

There are undoubtedly unidentified conditions for creativity to take place, and teachers and artists discussed some in interviews and in their templates. Whether they are a result of PDs, or from partnering with a professional artist, or from another external experience as a teacher is somewhat negligible for this report. What is clear is that they are illustrative of this Veteran work.

- Environment conducive to sharing and discussing personal work: Veteran teachers and teaching artists frequently model behavior to their students to make them comfortable working with the medium. For example, one teacher and artist team performed movements in front of a middle school class to show students that they should be open to also moving in front of each other. Another teacher created her own collage on Tone – the same activity students engaged in – and shared that with the class.

- Making curriculum relevant to students' lives (especially if it isn't already relevant): Veteran teachers and artists relate curriculum to what students understand and have experience in. This is especially evident when the topic of study is not immediately seen as relevant. For instance, when students had to study World War I, the teaching artist had students reenact power structures amongst their siblings to help them understand the power hierarchies preexisting amongst certain countries.

- Encouraging different social dynamics: The arts integrated units place students in different social relationship with one another. This can take place by altering space between students, as performance exercises do, or giving them new spaces for their bodies to work around (on stage, outdoors). Teachers have students play roles, (one student can be the archaeologist, another the historian, another the critic) or be on competitive teams. Practicing critique is another example of this condition. Students are exposed to and incorporate new perspectives into their work as a result.

The fourth graders were definitely asking their peers for advice and sharing with them their ideas. Because the fourth graders were paired up so they could share landform images, they began sharing their art materials and ideas with each other. They were not collaborating, but due to the nature of the project, they began collaborating on decisions that affected their own individual designs. Many students would make suggestions to their peer regarding which pastel or paint colors to choose. At other times, students would suggest changes that the other could make to the design. They pointed out things that maybe their peer didn't see. (Online documentation, 2011)

STUDENT IMPACT

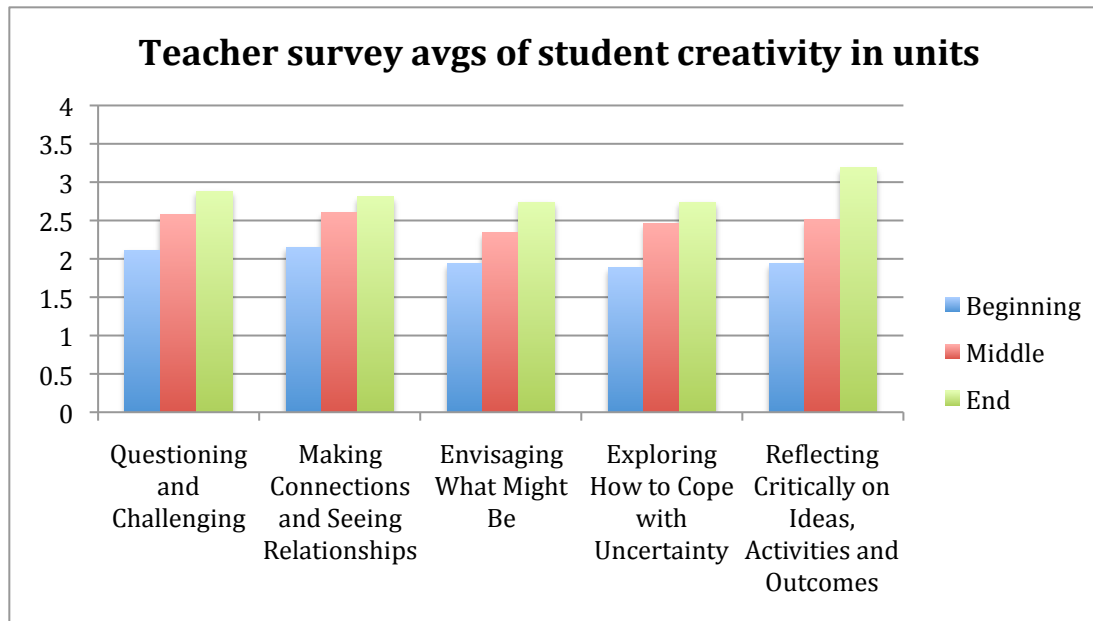
The first half of this report focuses on how Veteran units foster creativity – namely what are the conditions of the classroom, and the role PD can play. The second part focuses on impacts as observed by teachers and teaching artists, and by students themselves.

Student creativity

Similar to last year, teachers and teaching artists saw students' creativity indicators deepen as the units progressed. On a four point scale of deepening behavior, teachers and teaching artists report that by the end of units, behavior is advancing or close to systemic – meaning that behavior is fundamental to how the student is thinking or creating. (See Appendix C for survey)

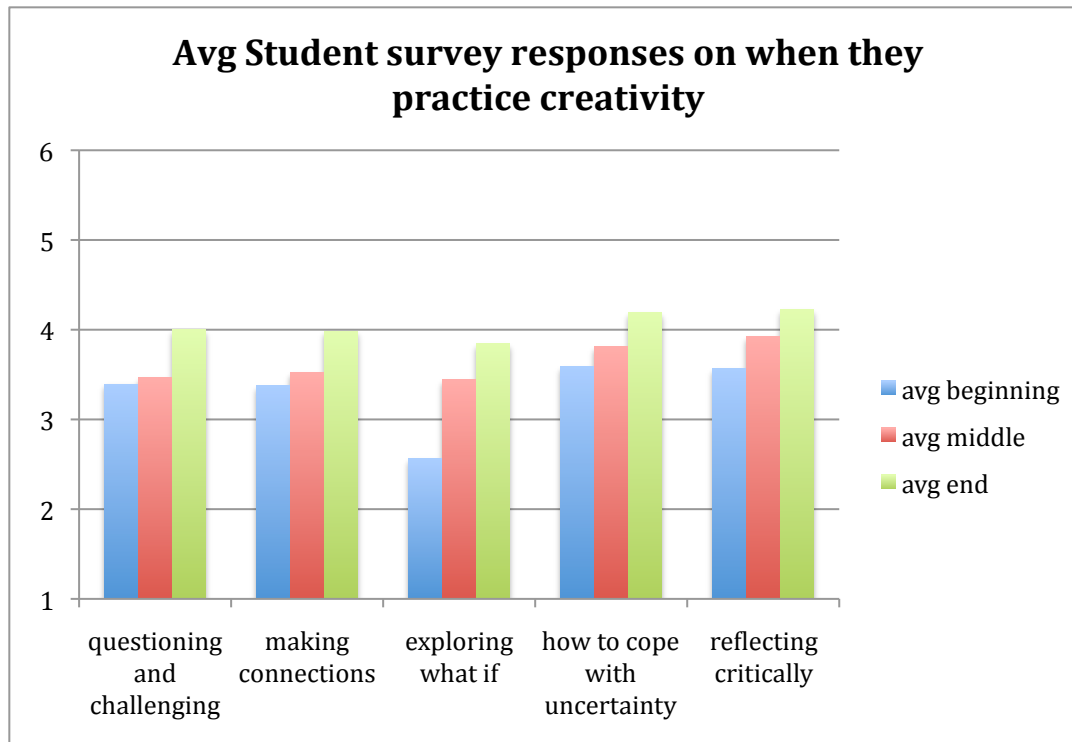
The categories listed on the chart, i.e. Questioning and Challenging, or Envisaging What Might Be represent groups of more specific behaviors. Those teacher-reported indicators practiced to the highest degree were *“offering feedback”* and *“taking an active role in analyzing each other's finished work and their own.”* Those teacher-reported behaviors that students practiced to the least degrees were *“anticipating difficulties”*, and *“adapting and modifying ideas when intended goals are not available”* and *“asking other students what might be, what if?”* (See Appendix B for survey data)

The fact that the survey responses for the category “Reflecting Critically” are higher than any other indicator may suggest that the impact of PD can also be quantitatively seen in this data. It is possible that teachers reported these behaviors at higher degrees because they practiced critique more frequently due to the PDs. However, because the data is not tested for significance and there is not enough data to prove this relationship, I can only make suggestions. CAPE program staff may consider looking at the behaviors reported at low degrees as future concepts to explore at PDs.



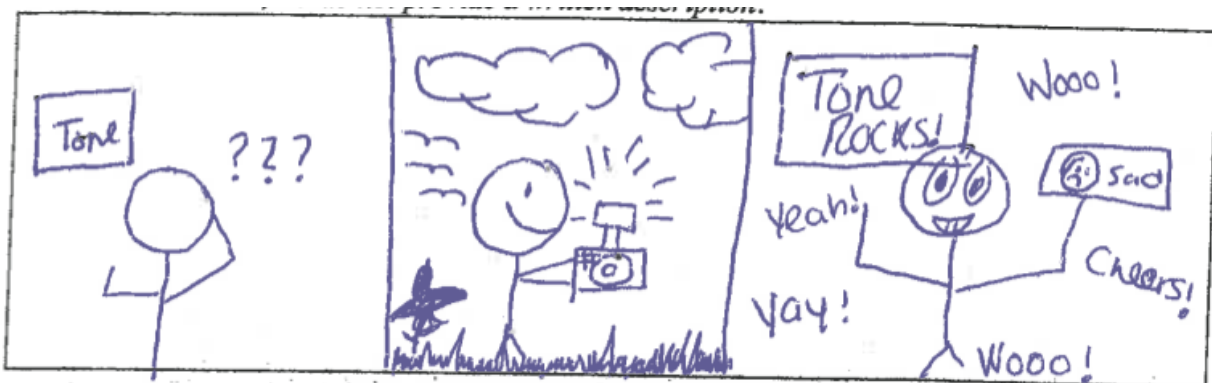
In addition to the teacher surveys, four classrooms administered surveys to students that asked when they practiced these creative behaviors and to what frequency (1=never true, 6=always true). Program staff was interested in whether or not the students' reporting differed or complicated findings from the teacher survey. Students on average however reported in a similar vein, confirming that these behaviors increased over time. Additionally, reflecting critically was the most frequently reported behavior overall. (See Appendix C for student survey)

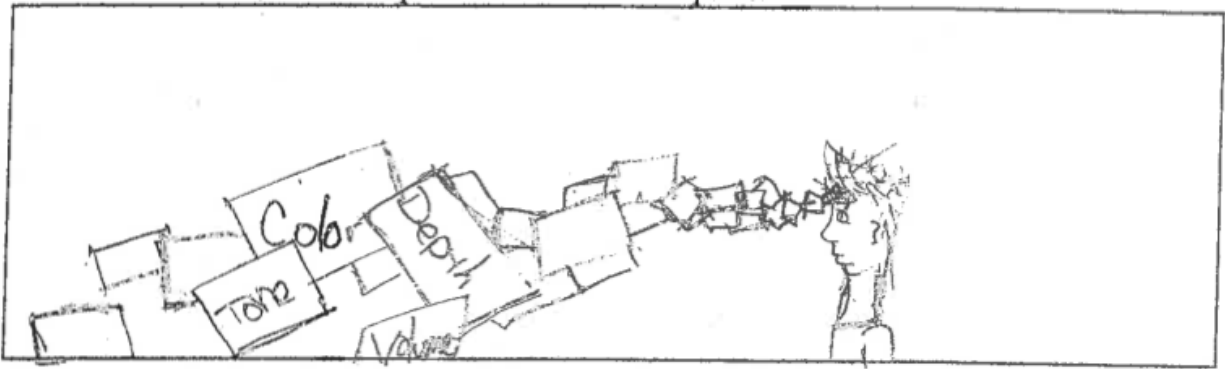
Specific indicators across all four classrooms most frequently noted were *"I've looked back at what I made to help me understand what I learned"* and *"I am self-motivated to complete the work"*. Some of the least frequently reported behaviors are *"I look to other students as a source to create my work,"* and *"I ask myself, 'What will someone else think about my project? to help me finish,'"* and *"I ask why and how questions."* The fact that two of the three indicators listed recognize use of the social dynamic to create work raises questions about the survey. Students may feel that recognizing these dynamics is not appropriate (i.e. 'looking at other students' work' is stigmatized) and may score them lower; or the behavior is taking place less frequently. Although interesting to note these, more data from different classrooms should be gathered before conclusions are made.



Despite the fact that these behaviors, *on average*, increase over time, a student by student survey analysis shows that every student practices different behaviors to varying degrees at different times.

The student sketches from one classroom below demonstrate what a student learned in terms of skill, concept and subject matter. Although several students illustrate moving from a place of confusion to one of clarity, others are more abstract and less linear. Thus a curriculum built on specifically scaffolding these behaviors should be avoided, as well as an expectation that each student should be practicing these behaviors in a gradual way. In each student, the indicators emerge as long as the conditions for creativity are put into place. This approach to fostering creativity advocates for a diversity of learning styles rather than stifling them.





Academic impact:

Of the nine teachers interviewed, all of them stated this work helped their students learn academic content – either the one under study in the unit and/or subjects outside the unit. Behaviors associated with creativity could easily be transferred to other subjects. “Reflecting critically,” for instance, helps determine what went wrong in a science experiment, or helps to understand how history unfolds. “Exploring what if” requires students to consider multiple perspectives to problem solve.

[The teaching artist] talked to them a lot about colors, what symbolism means. She showed a lot of videos in terms of different perspectives on things, what does this look like. A lot of open-ended questions, which allow kids to think critically. And I believe that that’s definitely [what they use] in every subject. She talks to them about texture, perspectives, feeling things, how does it feel, all of that. A lot of stuff had to do with science...I see it a lot just in their social studies projects and they’re thinking more. They’re thinking critically about what it is that they’re doing. (Interview April 18, 2011)

As a case study, a high school classroom teacher wanted her arts integrated unit to involve Tone because it is a key topic covered on the English AP exam. She and her teaching artist co-created a curriculum on Tone in Photography to take place in May for exam. At the end of the unit she administered a survey to her students.

From the survey, 18/19 students agreed that they better understood the definition of tone, how writers and photographers used it. 17/19 and agreed that it would be helpful for the AP examinations.

- “The project was extremely fun and creative, I believe it helped me on the AP exam because as we were introduced to the subject in an exciting way to help retain knowledge in my memory”
- “Any time working on tone is good especially if it’s different from what we usually do in class.”

- "Yes this project made me understand tone and other literary devices. It can be improved by assigning a tone for each student and have them write about it ..."
- "It showed me writers aren't the only ones creating tone and that 2 medias with the same tone can help the audience understand tone better."
- "Before I'd see a photograph in Newsweek and say oh there's another war but then I realized there was meaning and depth, just not another casualty of war but a story; one filled with horror which altered my opinion."

At the end of the unit (which ended after the AP exam), the teacher considered starting her unit earlier in the year because the unit did not only help her students simply understand tone, it helped them analyze literature in general and articulate their ideas.

Not until we actually started doing the artwork, because this whole class is so opposite of CAPE work, just a very analytic, cerebral reading things, writing essays. And some of these kids, just in these final days, really came alive. And I'm really wondering next year if we shouldn't do this in the beginning. Because just the fact of sitting in a group together creating creates a whole different atmosphere. And the fact that there were kids who haven't been so good at analyzing or discussion who haven't said a word all year who were now able to portray things very well in artwork. (Interview, May 17, 2011)

When it comes to re-applying what is learned from the Veteran units, the constraints of the school calendar place some teachers and artists in a bind. Because of all the material they need to cover before testing in May, they do not always start the arts integrated units until the end of the year. This places the unit in an awkward position – students and teacher may think of them as an afterthought, or considered 'fun time' after testing. If Veteran teachers and artists want to further explore the relationships between academic content and these arts integrated units, a concerted effort to start these units earlier in the year is necessary, or multiple year impact should be studied.

Social, Developmental Impact:

If the relevance of this work to academic content is undisputed amongst teachers and teaching artists, social and developmental impact is expected. Already a number of studies demonstrate how creating art fosters social and emotional growth amongst people of all ages, and these arts integrated units are without exception. All nine teachers who were interviewed noted some anecdote about a student or group of students they saw develop socially or emotionally during this unit. Teachers frequently report that those students who have not traditionally succeeded show, often for the first time, focus, motivation and leadership.

[The teacher] just said that this student I'm talking about that had a plan and came right in and knew exactly what he wanted to do, she said that this is one of the kids she was mentioning that was having difficulty the whole year and was not engaged. I have not seen that side of him at all. He, to me, has been one of the most engaged the whole time. (Interview, May 17, 2011)

I think the way that we build the class and the community of learners pushes everybody forward. Whatever confidence that they're at, they are going to be a step above the confidence level that they started at just because of the way things are structured, so no one really feels, you know, oh, this or that. (Interview, April 18, 2011)

SCHOOL IMPACT

Because several teachers and artists have worked with CAPE for over a decade in the Veteran Partnerships, there exists an expectation that the arts integrated work 'spills over' to the larger school community. How to define that expectation has been a longstanding question. Should Veteran Partners be expected to mentor other teachers? Should a requirement be for each partnership to exhibit their work on a bulletin board outside the classroom? Take Agassiz, for instance. Agassiz has been a longstanding example of how CAPE impacts schools: the art is visible; the administration enforces process documentation by all teachers; there have been a number of long term Veteran Teams in its history. The school is frequently cited as an example of school impact. However, Agassiz is one school amongst many, and to ask that all schools perform like this one is unrealistic and neglects complex differences. Each school runs differently, with its own principals, its own teachers and staff, its own particular student body and environment.

So when asking teachers and artists what is the impact outside the CAPE classroom, teachers mentioned a range of examples. Some involve other teachers in the school adapting this work. In other cases, teachers practice activities and techniques learned from their teaching artists at other times of the year.

- The art teacher, who is not involved in the Veteran Program but is aware of it, emphasizes the ideas from the CAPE unit and asks students to recall the teaching artist's work.
- A Latin teacher saw how the students were creating abstract versions of organs from the human body from the Veteran Unit. She requested that the art teacher create another human body drawing for her to label in Latin.
- An art teacher, who has been a Veteran Partner for many years, sits down with classroom grade teachers at planning meetings to figure out how they can integrate their work with art.
- Several classroom teachers involved in the Veteran Program practice what they've learned from their units (i.e. collage techniques, or ensemble building exercises) with their students without the teaching artist.

Perhaps the most important school impact is that of students, who retain the experience from the arts integrated unit and carry it through future years. They are the link between classrooms that do participate in the Veteran Unit, and those that do not. In schools where the arts integrated unit is grade specific, younger students anticipate the year they work with a teaching artist. There exists a sense of tradition that pulls the school community together.

Because like other, the upper cluster is doing the arpillera unit, so people around the school know that, and then there's the eighth grade benefit and the sale, so those are

things where people know of and know about what the kids are doing. I think it's always interesting to me, because having repeated it now, I'm having students say, "Oh, my sister saw me doing this and she showed me hers," and she had it three years ago. So those kinds of like just sort of community-building being like this is sort of a thing that happens here in our school, I always like that. (April 14, 2011)

Veteran Partners also commented on the potential directions in which they would like to see their schools changed by the program. Several participants wanted to share the work more publicly with other teachers, parents, and community members. Others considered a more focused approach, targeting specific teachers (i.e. grade level, special needs) to adopt these arts integrated practices. Another teacher commented that she would like these arts integrated projects to be more integrated into the high school curriculum as standard, not stand-alone, learning experiences.

At the same time they shared these ideas, however, 4/9 teachers interviewed mentioned the difficulty in finding the right teachers to adopt these practices. Either staff turnover proved challenging, the artistic discipline wouldn't be of interest, or a teacher may just not be the right fit. As academically and socially valuable this work may be, it does require teachers to feel comfortable and interested in working with the arts, and be willing to complete additional work.

First of all, there should be the acceptance that this is not going to work for everybody, at this point, and then how can we find the teachers for whom this is really going to work. Kind of like identifying creativity, how can we identify teachers that can take this and run with this and want to do this, and then stop putting it on teachers who, it's just this is not what they're going to do. (Interview, May 17, 2011)

Offshoots of these arts integrated units will likely continue in a spontaneous, random way without additional structure. Teachers share ideas for a few minutes in the hall, or walk by an exhibition of work from the unit, and bring some of those ideas to their classroom. If school impact remains a primary goal of the Veteran Partnerships, program staff should determine whether or not such examples of school impact are sufficient, or whether they want to more deeply engage with schools.

CONCLUSIONS and RECOMMENDATIONS:

This report marked the third year the Veteran Program focused on creativity, specifically using, applying, re-conceptualizing a set of researched behaviors that illustrate what creativity is in the classroom. As a generative theme, it has helped teachers and artists move their work forward and given focus to PD. Last years and this years' research both suggest that teachers with long-term experience in the Vets are more likely to report student creativity as evidenced in their surveys and online documentation.

How program staff frame these indicators in subsequent years will largely influence how generative this theme continues to be. As noted in the report, there are those indicators less frequently noted than others – namely, “anticipating difficulties”, and “adapting and

modifying ideas when intended goals are not available” and “asking other students what might be, what if?” As a starting point, staff may consider tackling these at future PDs. Also, there is strong evidence that student creativity increases as units progress. Staff might also be interested in funding units that run several sessions longer to see how creativity can continue to develop and also address the commonly cited barrier to this work: lack of time.

There are surely many other factors to support creativity not mentioned in this study. For one, this study is limited to this year. Many of the findings relate to “Reflecting Critically” because the PDs focused solely on critique. The larger conclusion to this report is to suggest reevaluating the research question and plan for next year. If research is intended to serve as professional development (which is part of the action research methodology), the question and its tools need rethinking. For instance, teachers and artists have completed the same survey for their units for the last three years. Are they and staff still interested in the same questions, or have these been answered in previous reports? What kind of teacher data might answer new questions that have emerged since then?

Student data would provide more insight to this topic. Although findings from the student data are limited this year (due to the experimental nature and the limited number), they did show how students self-reported their own creative behaviors, and how they can process information in a unit. What would be of interest to collect from students largely depends on the research question. Additionally, because this work clearly has a broad impact, the questions to ask students should move beyond the arts integrated unit itself and focus on the impact on other subject areas, on school community in general or from year to year. To narrow this kind of work to finite units narrows its potential as a form of education.

APPENDIX A: Approach to Research

Traditional models of research place researchers as external evaluators, who request for and collect certain types of data without involving themselves in programming. The Veteran Program's approach on the other hand, necessitates participation by staff and by teachers and artists. In it, the subjects give input on the research plan. They discuss the ideas being researched, what is questionable or what should be further examined. Their feedback, along with program staff input, help shape the research tools, that then act as forms of professional development in and of themselves. From CAPE's past experience, this approach based on action research methodology helps CAPE learn more about how to improve its programs than the traditional model. In 'action research' inherent tension exists between the researcher's plan and those driven by the participants.

As a researcher working under this model, I sought to ensure that the participants respond to the main research question as well as answer their own questions driven by this practice. The types of data are detailed below.

Interviews: I interviewed 16 participants (9 teachers, 7 artists) who represented 8 distinct arts integrated units from a range of classrooms, artistic disciplines and years of experience in the Veterans program. These represented approximately half of all VET participants. The interviews lasted from 45 minutes to an hour each. Because teachers and artists have limited time, I focused the interviews by prefacing them with three areas of questions in mind – one was on the impact of professional development to the classroom, another was on student impact (creatively, academically, socially) and the third being the long-term effects on the teachers and the school. What has the teacher learned from the teaching artist, what is the impact outside the Veteran classroom? The limiting time frame may have narrowed the responses given by participants, but under the conditions of teacher and artist schedules, additional time was not always possible.

Teacher surveys: Similar to last year, each participant (classroom teachers and teaching artists) was asked to complete the "Creativity Indicator Survey" for the beginning, middle and end of each arts integrated unit they participated in. The survey continues to use the same five headings previously used to define creativity including "Questioning and Challenging; Making Connections and Seeing Relationships; Envisaging What might Be?; Exploring how to Cope with Uncertainty; and Reflecting Critically." The survey is measured on a scale of complexity, the higher the rating, the more engrained the behavior is from the teacher perspective. Because this is a self-reporting tool, conclusions drawn from it are limited. Analysis of the surveys is based on averages; limited resources did not allow for me to test for statistical significance. On average, 73% or 83 surveys were completed in total. Despite these limitations, this is a large sample, enough to show overall patterns and trends that upon which conclusions are based.

Student surveys: As a trial run, program staff inquired teacher and artist teams if they would be interested in administering a quantitative and/or qualitative survey to their students. The students would self-report the frequency in which they practiced creativity indicators at the beginning, middle, and/or end of the unit. The goal was in part to confirm what the teachers reported, but also to understand from the student perspective when they

practiced behaviors of creativity. They had the choice of administering a quantitative based survey and/or a qualitative one, based on the focus of their unit. Three teams gave their students the quantitative survey at the beginning, middle and end; one team gave their students the quantitative survey at the beginning, and another team gave the quantitative and qualitative survey at the end of the unit. There were a total of 303 student surveys (123 from the beginning, 82 from the middle, 99 from the end). As this was a trial year for this tool, the findings are preliminary. They are still important for the program staff and researcher in determining how they would like to approach research next year.

Online documentation units: I examined online documentation of units provided by the teacher and teaching artists. A total of 17 documentation templates were available. These pieces of qualitative evidence were examined to see what trends or patterns existed around teacher practice and how students learned.

Other qualitative data included notes from professional development, sample videos from three different teaching artist sessions, video of convergence presentation.

Appendix B: SURVEY DATA

AVG TEACHER SURVEY RESPONSES BY BEGINNING, MIDDLE, END

	Questioning and Challenging	Making Connections and Seeing Relationships	Envisaging What Might Be	Exploring How to Cope with Uncertainty	Reflecting Critically on Ideas, Activities and Outcomes
Beginning	2.114285714	2.151785714	1.9375	1.885714286	1.94047619
Middle	2.576	2.61	2.34	2.456	2.506666667
End	2.882716049	2.814814815	2.740740741	2.740740741	3.191358025

AVG STUDENT SURVEY RESPONSES BY BEGINNING, MIDDLE, END

	Questioning and Challenging	Making Connections and Seeing Relationships	Envisaging What Might Be	Exploring How to Cope with Uncertainty	Reflecting Critically on Ideas, Activities and Outcomes
avg beginning	3.394642857	3.378706188	2.560876623	3.591564917	3.569753086
avg middle	3.466194685	3.524024092	3.446506787	3.814172796	3.92345679
avg end	4.004944754	3.985208122	3.846138301	4.186947912	4.223426966

APPENDIX C: RESEARCH TOOLS

CAPE Veteran Partnerships: Teacher Creativity Indicators Survey 2010-2011

Please use this form as a lens to look at your students' behaviors for one lesson in your CAPE unit. This survey should be completed by both the teacher and the teaching artist for a session at the beginning of your unit, for a session at the middle, and a session at the end. (For each unit, a teacher and teaching artist will each complete 3 surveys)

This is NOT an evaluation of your classroom or your teaching; rather it is a way for us to get a sense of what students do when they are practicing and learning creativity during a particular CAPE lesson.

For THIS CAPE lesson/session, circle the number that most accurately reflects how the students were learning.

- 1 -- Negligible -- students did not show this behavior at all in this lesson
2 -- Developing -- students started to show this indicator in small bits and scattered moments in this lesson
3 -- Advancing -- students show that they are practicing this behavior in a significant way in this lesson
4 -- Systemic -- students practiced this behavior like it was fundamental to how they thought and acted in this lesson

QUESTIONING & CHALLENGING	
1 2 3 4	1. Are students asking Why? Asking How?
1 2 3 4	2. Are students responding to ideas in a surprising way?
1 2 3 4	3. Are students teaching the teacher or artist?
1 2 3 4	4. Are students looking to other students as a source to create their work?
1 2 3 4	5. Are students consciously and actively influencing the direction of the curriculum?
	If you circled 3 or 4 for an indicator, provide an example of how it happened. Be sure to upload documentation of this into your "gallery tab" on the template.
MAKING CONNECTIONS & SEEING RELATIONSHIPS	
1 2 3 4	6. Are students making connections between situations or things that are not usually connected?
1 2 3 4	7. Are students searching for trends and patterns?
1 2 3 4	8. Are students forging connections to their home lives?
1 2 3 4	9. Are students making meaning by building on previous work?
	If you circled 3 or 4 for an indicator, provide an example of how it happened. Be sure to upload documentation of this into your "gallery tab" on the template.
ENVISAGING WHAT MIGHT BE? IMAGINE WHAT IF?	
1 2 3 4	10. Are students exploring "What if" in depth (with discussion and scenarios?)
1 2 3 4	11. Are students asking other students what might be? What if?
1 2 3 4	12. Are students seeing things from different points of view?
1 2 3 4	13. Are students proposing divergent outcomes outside of the accepted or articulated one?

	If you circled 3 or 4 for an indicator, provide an example of how it happened. Be sure to upload documentation of this into your “gallery tab” on the template.
EXPLORING HOW TO COPE WITH UNCERTAINTY?	
1 2 3 4	14. Are students anticipating difficulties?
1 2 3 4	15. Are students adapting and modifying their ideas when direct instruction is not available?
1 2 3 4	16. Are students adapting and modifying their ideas when intended goals are not available?
1 2 3 4	17. Are students improvising while they are working on their project?
1 2 3 4	18. Are students working through an impasse mostly on their own?
	If you circled 3 or 4 for an indicator, provide an example of how it happened. Be sure to upload documentation of this into your “gallery tab” on the template.
REFLECTING CRITICALLY ON IDEAS, ACTIVITIES AND OUTCOMES?	
1 2 3 4	19. Are students inviting feedback?
1 2 3 4	20. Are students incorporating feedback?
1 2 3 4	21. Are students offering feedback?
1 2 3 4	22. Are students taking an active role in analyzing each other’s finished work and their own?
1 2 3 4	23. Are students articulating the development of the process?
1 2 3 4	24. Are students accounting for divergent opinions and moving them towards a consensus?
	If you circled 3 or 4 for an indicator, provide an example of how it happened. Be sure to upload documentation of this into your “gallery tab” on the template.

Indicators were adapted by CAPE staff and Dr. Gail Burnaford from Center of Research on Education, Diversity and Excellence, crede.org and from CapeUK, capeuk.org

CAPE Veterans: Student Survey 2010-2011

To complete for the Beginning, Middle and End of your project

NOTE: Those Teacher and Teaching Artist Teams interested in asking their students these questions selected survey items from the below listing and/or from the open-ended Student Creativity survey. This was to ensure that they felt the questions appropriate to their lesson, and that this research became a part of their action research project.

Student Name: _____ School: _____
 Grade: _____ Classroom Teacher: _____ Date: _____
 How many years (not counting this one) have you had teachers work with artists in class? _____

Instructions: This is a survey about your experience in this CAPE lesson.

For each statement, circle the number that best fits what you think you did. It's important that you don't circle the same number for every statement. You should be comfortable with your own answer. We expect everyone will circle different numbers.

Just remember is to circle the number that best matches what you did during this lesson.

Not True	Less True	Somewhat True	Often True	Mostly True	Always True
1	2	3	4	5	6

Example to review with whole class:

1	2	3	4	5	6	1. In class, I'm asking 'why' and 'how' questions
---	---	---	---	---	---	---

What does it mean if you circle "6"? Is it **always true** that you ask 'why' and 'how' questions? Does this statement happen all the time? What does it mean if you circle "2"?

For the following sentences, circle ONLY ONE number

Not —> Always true	
<i>Questioning and Challenging</i>	
1 2 3 4 5 6	1. I'm asking 'why' and 'how' questions.
1 2 3 4 5 6	2. I felt comfortable questioning my peers, my teachers, or my textbooks.
1 2 3 4 5 6	3. I have opportunities to show my teacher(s) all the things I can do.
1 2 3 4 5 6	4. I look to other students as a source to create my own work
1 2 3 4 5 6	5. I believe I have a role in creating the curriculum.
<i>Making Connections and Seeing Relationships</i>	
1 2 3 4 5 6	6. I connected ideas that I never thought were connected before.
1 2 3 4 5 6	7. I search for trends and patterns
1 2 3 4 5 6	8. I make connections to my home life.
1 2 3 4 5 6	9. I look at previous work to help me complete what I worked on today.
<i>Envisaging What Might Be, What If?</i>	
1 2 3 4 5 6	10. I came up with many different plans of how my project might work.

1 2 3 4 5 6	11. I ask other students about how their projects might work.
1 2 3 4 5 6	12. I ask myself, “What will someone else think about my project?” to help me finish my project.
<i>Exploring how to Cope with Uncertainty</i>	
1 2 3 4 5 6	13. Before finishing my project, I think of things that might not work out and change my plan.
1 2 3 4 5 6	14. When the teacher or artist isn’t there to teach me, I figure out how to do things on my own.
1 2 3 4 5 6	15. I changed my original plan to make my project work.
1 2 3 4 5 6	16. I am self-motivated to complete the work.
1 2 3 4 5 6	17. When I have trouble with part of my project, I figure it out mostly on my own.
<i>Reflecting Critically on Ideas, Activities and Outcomes</i>	
1 2 3 4 5 6	18. I ask other students what they think about my project.
1 2 3 4 5 6	19. I ask other students how my project might be improved.
1 2 3 4 5 6	20. I use the feedback other students give me.
1 2 3 4 5 6	21. I let others know how I think their project could be improved.
1 2 3 4 5 6	22. When other people (students, teacher) ask me about my project, I tell them how I made it and what I learned, from start to finish.
1 2 3 4 5 6	23. I look back at what I’ve made to help me understand what I learned.

Indicators were adapted by CAPE staff and Dr. Gail Burnaford from Center of Research on Education, Diversity and Excellence, crede.org and from CapeUK, capeuk.org