

## Program Synthesis

Technology is now a reality and key factor in our lives. In order to prepare for its many uses, education in this area is vital to technology being used in positive ways, and understood at many different levels.

T.E.A.M. was an option offered in September 2004 as a way for me to reach this goal. T.E.A.M. presented me with the opportunity to grow, take advantage of a process that would develop and practice leadership, and build my own learning system within the context of other systems in order to gain knowledge. Issues that were explored in the program included constructivist elements, as well as envisioning a future for me, my classroom, my school, and education in general. Several components were studied which had an impact on the systems and how they functioned. These will be discussed as to their role in and purpose in a system. The components include Costa's and Kallick's Intellectual Behaviors, Senge's five disciplines, and readings and contacts that are important now and for the future. Costa's and Kallick's Intellectual Behaviors were a thread woven constantly throughout the program, in my own learning, and also in my students' learning. These behaviors will be discussed in depth as they related to my growth in the T.E.A.M. Program. The 16 Habits of Mind identified by Costa and Kallick include:

- **Persisting**
- **Thinking and communicating with clarity and precision**
- **Managing impulsivity**
- **Gathering data through all senses**
- **Listening with understanding and empathy**
- **Creating, imagining, innovating**
- **Thinking flexibly**
- **Responding with wonderment and awe**
- **Thinking about thinking (metacognition)**
- **Taking responsible risks**
- **Striving for accuracy**
- **Finding humor**
- **Questioning and posing problems**
- **Thinking interdependently**
- **Applying past knowledge to new situations**
- **Remaining open to continuous learning**

The 16 named Habits of Mind are attributes that we ourselves as learners in this program have used and developed over the last two years. As soon as I began to read about these characteristics I identified with them, and felt that they had meaning as I observed my students and myself, on a daily basis. I could see what an impact they had within the individuals I teach. I also knew that they were going to play a role in my education in the program as well. I became aware of certain behaviors that were going to help me reach my goals and the ones that were going to hinder my progress. I will explain how these behaviors have played an important role in my education and in my life. I will relate them to the three major areas developed in the program, EEV, PG/S, and Technology.

### The 16 Habits of Mind and EEV

In the EEV collaboration, several habits were developed more than others. Some were attributes that became quite valuable throughout the program. These behaviors were important factors in making my EEV group, Just Imagine, as successful as it was. They included imagining, creating, persisting, thinking and communicating with clarity and precision, taking responsible risks, and questioning and posing problems. Every one of the habits was used; however some were used more than others.

To begin, I remember trying to imagine the site we were discussing in idea form. Each idea in our brainstorming sessions lead to a clearer vision of the site. I know I would always try to envision what I thought the site might look like, but at the same time I tried to think what my partners were imagining as well. If we were coming up with different pictures as we worked this through, we tried to clarify what we meant to help make the picture a little clearer for ourselves, so what we were imagining could become something real and attainable.

Creating was the fun part of the project. I enjoy the creative part of making a page. I think I got carried away at times, spending too much time on one section, or making a page that was too busy looking for example. Being able to express whatever I wanted was sometimes overwhelming. There are many decisions to make, so some self discipline had to come into play to stay productive.

Persistence was a major piece in the whole project. It had many faces. They could be applied to both my students and me as well. In this area, the idea of working on an assignment or working towards a goal that was set, added challenge and required persisting. Learning was done one stitch at a time, often having to redo sections over and over until done right. Persisting was needed to learn new skills in Fireworks, Dreamweaver, or MovieMaker, for instance. It was also needed when working in the group, getting others to see eye to eye, as well as to work hard to get the task done. There was not much that we imagined doing that we did not accomplish. We may have had to find alternate solutions as we worked, but always kept at tasks even when frustrated by them. Our questionnaire was an example of this. We could not get the questionnaire to print properly because of the table format. Eventually, we had Donna help us put it into a PDF format that could be printed instead. I think this area was one we were strong in. I believe it is so valuable to my students as well. If they have the ability to take a frustrating situation and make it one that they can learn from and that will challenge them to try another method they will find much success. Thinking and communicating with clarity and precision was a vital aspect to our EEV work, too. Our

group was great about keeping each other up to date on what new progress was made, or what snags or knots occurred each week. I think we knew at all times what each other was focusing on for the week, how important it was, why we were doing the piece, and how we had planned to complete it. Because we were a small group, just three of us, I think we all had an important role to play, that we took seriously. I believe it was easier to deal with communication between three people as opposed to four or more people. Everyone's voice counts and the more clearly it is done the easier it is conveyed to the others in the group. Again, in a bigger group that would be more difficult. I think size matters. I really liked our group size. Larger groups seemed to have more trouble in this area. That may just be my "mental model" however.

As an EEV group we were able to question and pose problems that had to be dealt with. We did not fret about why they came up or who thought there was a problem, if someone felt there was an issue to be resolved it was dealt with immediately and to everyone's satisfaction. I think we all became flexible making the whole project more important than an individual's personal likes or dislikes.

Taking responsible risks was a behavior that was displayed in the EEV group. I know I was not always certain of what I was doing on a Dreamweaver page, but took a chance on it, in hopes that the outcome would move the project forward. Thankfully, I think almost all of the risks taken produced positive results. If there was a set back it was not so drastic that it upset the whole project. The risks taken were responsible and so they caused no damage in the long run. I think we were always content with the risks that each other took for moving the project forward. It may have been a conversation with a potential interviewee, or making a new page that had not been completely discussed before. With the support and trust we developed risks were able to be taken without fear. This is so crucial to learning, and was truly evident in our EEV collaboration.

## The 16 Habits of Mind and Technology

In the area of technology there were different attributes that made the program work for me. They included persisting, taking responsible risks, striving for accuracy, finding humor, questioning and posing problems, and applying past knowledge to new situations.

Persistence was definitely a factor when working on the mastery of a new technology skill. This seems like a natural skill needed in order to learn something new, however I know that many students lack the persistence to follow through with work so they can learn. Maybe they don't see the connection it has to real life or the real life value. That is when I think it is our job to make them understand the importance of the skill being learned.

Many risks were taken in my learning over the last two years. That was one of the biggest hurdles for me to overcome. I never liked being unsure of what I was doing. Now it is exciting every time I try a new tool, button, or drop down menu item. I am pleased that the program helped me reach the point where I don't worry about mistakes and problems that occur. A big lesson was when we could not get rid of the virus my

computer had. That was difficult to deal with. I did learn that all issues can be resolved in some way or other. Once the problem was fixed, I realized how much I learned along the way and how to take certain precautions to prevent similar problems. Taking risks is much easier now on the computer, I don't know about the rest of the aspects of my life necessarily, but the computer, yes.

Striving for accuracy has developed quite a bit more recently. In the beginning of the program I did what I could, as best as I could, based on the new skills that I had learned. Now that my technology skills have developed and strengthened I find I place a lot more importance on how accurately I complete a project. I am a lot more particular about how it is completed, how it looks, and how it functions, as well. I think that is simply a result of all of the learning that has taken place, and the emphasis that can now be placed on technical issues and skills that make the project more accurate. I find that I am now looking for more tools to help me complete a step just the way I want to. In many cases I find tools to make the process easier. For example, in Fireworks when manipulating photos for my logo I was able to use many more tools than in the past. I found accuracy was required to be able to complete certain tasks. In Flash, if the steps were not completed carefully and accurately it was hard to make progress. I had to know what I was doing in each step until it was learned. Then I could play around a little more using the skill I had learned.

Finding humor was what has helped me through this whole program. If I wasn't able to laugh at myself during the process of learning I don't know if would have been able to take all of it in stride. Appreciating everyone's differences helped me to feel that I could poke fun at myself. If I was less knowledgeable in terms of a skill it was okay. If I could help someone and they felt their situation was funny because they lacked a certain skill, we could use that to move us forward in a positive way. I think keeping the humor made difficult tasks bearable and achievable. I look back now and realize that if I had simply decided that an assignment was more than I could handle, to let it overwhelm me, would have been much less productive. By sharing thoughts with others and finding humor in what we were trying to do, it helped me process the steps in a productive way. Laughing took away most of the frustration and insecurity. One example was when I had to use the projector to present a slide show with Ellen. I wasn't even sure of how to turn the equipment on. We just laughed until we figured it out. That was one thing that was great about the program, being able to work with others to help each other. If we worked in an isolated way, I think I would have taken things so much more seriously. I would have been worried about what I didn't know a lot more and that would have had a negative effect on my progress.

In technology, applying past knowledge to new situations seemed to have a multiplicity effect. Once certain tools or programs were practiced, learned and used for various reasons, they later became so convenient, productive and helpful in accomplishing a new project. Two simple examples come to mind. One was when I worked with Dreamweaver tables. I remember not knowing how large to make a table, and not knowing whether to use pixels or percents. The first table or two I made went way off the page and stretched far to the right side. So far that I did not know how to get, drag, undo, or fix the table. I have never done that since and don't remember how it happened. The error must be in my subconscious somewhere because I have not repeated it. Now I feel much more adept at using tables in Dreamweaver. The other example was when using Fireworks. I started using the basic step of changing the image size. I did

that over and over to resize my photography images. Eventually when I needed to try other more detailed tasks I had my past skills and practice to fall back on. I felt much more confident trying new things because of the past experience I had. I believe we need to be able to learn from our past experiences and mistakes to progress into the future. Learning from our past seems like a basic principle that we all take with us through life and learning. We just need to take the time to heed the signs and signals offered to us so we don't repeat situations that are not worth duplicating.

## The 16 Habits of Mind and PG&S

In the area of PG&S there was a new set of attributes at work to make reading and learning about new programs more valuable. They included gathering data through all senses, listening and understanding with empathy, thinking flexibly, thinking about thinking, questioning and posing problems, applying past knowledge to new situations, and thinking interdependently.

Several PG&S resources were used during the program that revealed the variety of senses from which information can be obtained. Several memberships of mine, all having electronic aspects to them, provided periodic literature as well. Those included ISTE and its Learning and Leading with Technology magazine, International Dyslexia Association and its Perspectives magazine, the Classroom Resource Guide by Discovery Education, and Edutopia magazine by the George Lucas Educational Foundation. The later included interesting information presented in articles, radio shows, lesson plans, video documentaries and more. There seemed to always be alternate ways of receiving information about topics of interest. Knowing there were many resources during the program and for the future was a comforting feeling. During the program I developed the feeling that support for topics interested in and required were not difficult to find. Using the LIU database was a good experience and provided a large selection of information, too. The wealth of information out there in many formats is astounding. Finding what is most useful is the more difficult task. Time and practice are the important elements to achieve this goal.

Listening and understanding with empathy was a large part of how learning occurred in the area of PG&S. I think it played a major role in all areas, and a vital role in having a meaningful experience. If students can identify with a story or lesson, they will involve themselves much more deeply. My favorite feeling of empathy was when watching the KQED website. There was a story called, "My Potato Story". It is at this site <http://www.kqed.org/topics/education/educators/calstories-contest.jsp>. It won first place in a contest of digital storytelling. The stories were all about "Coming to California". It seemed so genuine. It was not overdone or superficial. I felt empathy when listening to it. I immediately wanted to share it with others. It was very powerful, yet in some ways simple. I think this was a terrific example of something I listened to and understood with empathy. Our GLEF conversations were another good example of when we listened and understood, although empathy was not a major factor in the experience. The many presentations given by our classmates were great times to listen and understand with empathy. Chivy Sok, The Tolerance Center, The United Nations trip, and individual experiences we shared with one another were important. From all of these areas; people, websites, magazines, books, and articles, much was gained because they

provided the place to share a story, lesson or fact that may touch someone's life in a unique way.

Thinking flexibly was necessary when reading about new ideas that could not be imagined. I definitely had to think outside of the box to make some ideas or technology tools seem logical. I think the "Change is hard, changing is harder" quote is valid here. There is no room to grow and develop if flexibility is taken out of the picture in terms of technology and education. I knew going into this program that I needed to learn more about technology. I, thankfully, did not have doubts about the power and usefulness of it. As I stated in my first paragraph, I believe technology is a reality that needs to be understood at many levels. Having the flexibility to see the value at these different levels is important to make progress. Without flexibility, the world of education would not progress, and we would suffer instead. The world of education has work to do to keep up with the current technologies available. Taking courses like the T.E.A.M. program offers helps accomplish this. Keeping a flexible mind is important to be able to move forward.

There has been a lot of thinking about thinking in the area of PG&S. Peter Senge has established that in working with his readings in Schools That Learn. The course in general has developed the idea of thinking about thinking. I feel as though it has been applied well to the ideas we have read about which involve thinking about our schools, students, families, children, and teachers. The 16 Habits of Mind alone are completely about thinking about thinking. If we never considered what skills and attributes were needed to make good learners, and then never thought about how to apply the information to practical situations we would never become aware of why things happen. I am a firm believer in the idea that things happen for a reason. If we do not think about the reasons, we have no logical way to handle the situation.

The last three habits, questioning and posing problems, applying past knowledge to new situations, and thinking interdependently all seem to be evident in the ideas presented in Schools That Learn. In the situations and theories shared in the book, Senge made us as readers go through similar processes to make the ideas or concepts a reality that we could understand. I remember going back in my mind to think of a real goal I had for myself. Not the usual ones that might usually be named, but the ones that were really important for me. It was a great activity to refer to when trying to come up with a goal for school. Because the book had us do exercises, we could then take that knowledge and apply it to situations they were trying to have us think about. We also developed the idea of thinking together as one, and listening to all ideas to make solutions as valuable as possible. Excluding certain people or groups was not a good idea especially if they were going to be an integral part of the plan. Also, they needed to be a part of the conversation if the plan was going to affect them. This was a great eye opener for me. I saw how this was done on certain occasions and not on others by my school leaders. I could see how much more purposeful a meeting was with those involved that played a role in the outcome. Meetings that did not include members that were involved were sometimes planned that way on purpose. It now is something I notice and can be aware of to suggest to my leaders in the future.

These are the many things I learned and gained from the TEAM program. It has been an amazing experience and reflecting on each area and skills developed in them makes me more aware of all of the skills, ideas, and realities that can be achieved from the habits and mental models I create within my personal space. I'm sure as time goes

by I will be constantly reminded of the important issues we learned about. Learning about these issues and topics will not end simply because the program has ended. I believe there will be a greater chance now of making positive changes in our schools because of the education we have received. We have the knowledge, understanding and experience to base our values and opinions on in a more complete way now that we have mastered these ideas and concepts and put them into action for a two year period in the program. We know the benefits and positive results that come from the models learned. I look forward to the future in education and all I have to offer now that I am aware of the many positive forces that make for successful schools, students, teachers and programs.