

June 08, 2009

To: Faculty Resource Development Board  
MHCC College Board  
Joyce Coleman Dean Adult Basic Skills

From: Sue Byers-Connon

Re: Sabbatical Report  
Winter Term 2009

Thank you for the opportunity to develop collaborative learning experiences designed for GED level students. I found this to be a very positive learning experience for myself and am pleased with the outcome. I look forward to sharing the activities with my peers as well as interested faculty through a TLC presentation.

Since returning to campus spring term, I have had the opportunity to pilot many of the activities. This gave me the chance to make changes in some, as well as enjoy the success of others.

I developed a total of twenty-three activities, five reading, three writing, two math, five social studies, seven in science and one on group test taking. For each activity, I provided directions for the instructor and students, handouts, work sheets, answer keys, copies to make overheads, and in some cases journal topics and daily edits related to the subject. I have compiled a notebook with all of the activities included. A copy can be found in the ABS department and the Teaching and Learning Cooperative.

My interest in developing cooperative learning activities is based on my experience in working with adult learners. The GED students typically prefer to work independently, thus lacking the skills to work as a member of a team. The students also lack skills to become self-directed learners, have problems determining what learning is necessary to achieve their learning goals and taking the necessary steps to achieve them. This framework based on the adult learning process can assist learners to control their own learning (Knowles et al, 1998, p125).

After attending the TLC's 2008 Annual Conference titled *Born to Learn*, I implemented several learning activities using Smilkstein's Natural Learning Process, and had good results. This teaching and learning process involves up to six stages of learning and some activities can be achieved in three stages. Smilkstein conducted research, titled The Natural Human Learning Process (NHLP) on over 5,000 people and revealed the common experiences humans have when learning something new. These experiences include six stages.

**Stage 1: Motivation.** The learner responds to stimulus in the environment, their interest, curiosity, and desire to learn.

**Stage 2: Beginning Practice.** The learner practices, uses trial and error, makes mistakes, asks questions and consults with others.

**Stage 3: Advanced Practice:** The learner increases their skill and confidence, tries new ways, receives feedback, and has some success.

**Stage 4: Skillfulness.** Learner uses creativity, doing their own way, feels good about themselves, and share knowledge.

**Stage 5: Refinement.** The learner makes further improvements, learns new methods, continue to develop, learning is validated by others and they take ownership for their learning.

**Stage 6: Mastery.** They can now teach what they have learned to others, and they continue to learn. (Smilkstein, 2003 p 49)

Smilkstein also shared a learning activity based on brain research that includes major points about learning. She stresses that we are all natural born learners, our brains grows new dendrites, connect them at synapses and that is what learning is. She states that our brains were born to learn, loves to learn and knows learn. Emotions affect our learning and self doubt, and fear, can affect our

ability to learn where confidence and interest help our brains to learn, think and remember. (Smilkstein), 2003 p 56)

Using the suggested lessons, first teaching students about growing dendrites, and following with the natural learning process is a good way to introduce students to working together in small groups. They begin to develop a comfort level in asking questions, working together and knowing that it is all right to make mistakes which are all part of the natural learning process. Many of the GED students lack confidence in their ability to learn based on their previous learning experiences. They are also fearful of speaking in class, have self doubt and experience a variety of emotions that affect their learning. This type of leaning provides a non threatening environment and helps students realize their potential.

Following are descriptions of the activities that I utilized this particular method:

**Terminology- Poetry** (Language Arts and Reading)

This learning activity asks the students to individually list what they know about the characteristics of poetry. The students then work in small groups and share their lists which are written on an overhead and discussed as a large group. They then continue working in their small groups and identify examples such as simile and metaphor and then share with the large group. Students take responsibility for transcribing and reporting to the whole group.

**Writing the Introductory Paragraph** (Language Arts and Writing)

This learning activity would work best if followed by the Brainstorming activity. Learners individually write down what they know about writing the introductory paragraph in an essay Using the three stage learning process, they then share their answers with other learners in a small group, share with the large group and then work on an activity, in this case writing an introductory paragraph. This activity should continue as the small group writes the five paragraph essay over several class periods, receiving feedback throughout the process.

My main goal in developing collaborative learning techniques is to engage learners in the learning process. Through my personal observation and experience in working with the students in the GED program, they are very reluctant to work together. Perhaps they are lacking the communication skills necessary for group work, are afraid that they lack the knowledge to contribute to the learning process and have self-reported that they are shy about speaking up because they have been embarrassed in the past either by a peer or teacher. I believe that working in groups can help prepare learners for higher education as well as a viable member of the work force.

Collaborative learning is defined as “the instructional use of small groups so that students work together to maximize their own and others learning” (Smith 1996, p71). This type of learning requires students to work together on a task, sharing information and supporting each other. The teacher designs the tasks, manages time, monitors students learning, and the group process (Cranton, 1996, Smith, 1996).

Research for support of the impact of peers on student learning is extensive and comes from highly credible sources. Pascarella and Terenzini updated research initially conducted by Feldman and Newcomb, concluded that “students not only make statistically significant gains in factual knowledge and in a range of general cognitive and intellectual skills, they also change on a broad array of values, attitudinal, psycho-social and moral dimensions.(Pascarella and Terenzini,1991,p557)

Working in groups has different responsibilities from traditional learning methods. For example, students may be asked to be an observer, note taker, active problem solver, take risks, teach their peers and take responsibility to learn collaboratively. Barkley, Cross and Major (2005, p 37) believe that it is important to orient students to the process of collaborative learning to assure positive views of this method. Some type of ice breaker provides students with a way to get to know each other and develop a feeling of comfort in working with others. I also found it was important to be very clear with the instructions for the group work and after trial and error, developed written directions for each group activity as well as a short activity for the students to get to know each other.

The groups were held once a week titled "Tuesdays Event," and I did provide candy for the students to share. Initially they wanted to work in the same group as their friends and after several weeks, began to gain a comfort level in working with others. I noted in particular if it was a subject that they were not skilled in; they sought out classmates that excelled in the subject to be a part of their group, particularly in mathematics.

The text *Collaborative Learning Techniques, A handbook for College Faculty* (Barkley, Cross and Major 2005) proved to be a valuable resource for group activities.

Following are descriptions of the activities that I modified using this text.

### **Round Robin Poetry/ Brainstorming** (Language Arts and Reading)

This learning activity asks students to work in small groups, read a poem and brainstorm answers to questions related directly to the poem. Each student speaks for one minute. Several group members serve as a recorder and time keeper. After all the questions have been answered, and they reach a consensus, they share their answers with the large group and discuss how they determined the correct answer. (They did not see the multiple choice answers during the brainstorming). I had the opportunity to pilot this learning experience and found it interesting that many of the answers that the students came up with were actually the distracters. This gave me the opportunity to discuss test taking techniques and why the incorrect answers were incorrect and why the correct were correct. We also discussed if the question was an analysis, or application question. I also found that written directions for the activity would be helpful and developed them for future use as well as an icebreaker that involves writing a short limerick as a group.

### **Drama / Fishbowl Activity** (GED Language Arts and Reading)

The GED test includes questions on drama. For this activity I asked two students to act out a scene from a play. The other students sat in a circle (fishbowl) and observed the play. They were given a hard copy as well. The students were presented with questions that analyzed the play and were asked to discuss them as a group and come up with an answer. This was not as successful as I had hoped. I believe having them discuss in a group with others observing was uncomfortable for the students.

### **Talking Chips/Non-fiction Prose** (Language Arts and Reading)

This activity is one that I also had the opportunity to pilot in class and I feel was extremely successful. I particularly like the outcome and I believe it helped students develop an understanding of the challenges that persons with disabilities encounter on a regular basis. The activity began with the students forming groups and taking a matching quiz on Famous Persons with Disabilities. It was timely as former Portland Trail Blazer had just been diagnosed with Parkinson's disease, so I included his name. We discussed the answers as a large group. The students then read a non fiction article titled *Are People Always Rude to the Disabled?* They then were provided with questions related to the reading and each student received three poker chips. Every time they talked, they put one poker chip in the middle of the table. This gives all students an opportunity to talk the same number of times, the quiet or shy learners are "forced" to participate and the learners who may monopolize the conversation are "forced" to wait their turn. Each group came to a consensus and then we discussed the answers as a large group. I also had a film titled *When Billy Broke his Head*, that was optional and most of the students choose to watch it instead of going into another classroom to work independently. The following day for journal writing, I asked them to close their eyes and talked through a scenario where they were in an accident and ended up becoming a quadriplegic. They were asked to write about what they would miss the most. This turned out to be an excellent writing activity and thought provoking for the students.

### **Brainstorming/GED Essay Writing** (Language Arts and Writing)

The students begin by getting to know each other and sharing what they know about what is included on the GED writing test. They share their findings with the large group and we review their answers and add additional information as a reminder of that is on the test. This learning activity helps students individually brainstorm about a topic, writing their ideas on post it notes. As a small group they sort them into categories and create a title for each grouping. This activity should be followed by writing the introductory paragraph. This was successful and students continued to work together in writing the essay. The problem that is frequently encountered is that student attendance is not consistent and so many times group members are not present to complete the activity.

### **Send a Problem/ Parallel Structure** (Language Arts and Writing)

Students form small groups and each group is given a writing sample to examine and identify errors in parallel structure. They make changes on their copy (each group has a different color paper), place it in an envelope and pass it to the next group. After each group evaluates each sample, one member of the group presents the corrections to the large group. They have the opportunity to look at all the responses and can determine the corrections based on the input from all groups. The topics of the samples are; providing memories for children, Peace Corps, effective interviewing for a job, and music. There is also an opportunity for learning as in the case of interviewing.

### **Jigsaw Math** (Mathematics)

Students work in a small group to solve a math problem. Each group has a different problem. After solving the problem as a group, the group chooses a "peer teacher" who rotates through the groups and teaches the problem to the other group. (for this particular group the problems were percents as used in real life) After all groups have learned the different problems, the "peer teacher" from each group comes to the front of the class and demonstrated the method that was used for solving the problem. This activity was very successful

and I assessed the effectiveness of the activity by asking students to respond unanimously on paper to the following questions. Following are the questions and responses:

**A. On a scale of 1-10, (1 low and 10 high) how helpful was this exercise in deepening your understanding of math?**

Responses ranged from 5-8.

**B. Did you find this an effective use of class time? Why or why not?**

- It was nice working with different students at different levels, and it helped me understand better.
- Yes because people learn better from people than books.
- It was fairly effective, the only down side was that some of the student teachers did not know how to explain how they got the answer.
- Yes, because everyone could talk together about ways to solve problems.
- Yes for me because math is the only test I have left to take.
- Yes, I know I have to work on math a lot more.
- Yes, I learned some stuff.
- Yes, it helped me figure out other ways of solving problems.
- Yes, because you have teammates helping you as well.
- It was cool but I think we need more help explaining how to figure out the problem.
- It made time go by faster
- No, because I really didn't understand very well.
- Yes, the teacher explained the problems well.
- No, the problems were too hard for me, not at my level.
- I think it is a good idea to learn in a group.
- It helped me think of problems differently.
- Yes, because I am willing to learn something new.
- It definitely helped with the social learning
- Yes, because I learned how to do new things with math.
- It was pretty helpful, actually it got us thinking.

- I'm not so good at math, so yes.
- Yes, because it not only teaches us how to do it, but you get to see how other people work out the problem.

**C. How can this activity be improved?**

- Chips and dip.
- The "peer teachers" moving was kind of distracting, rotate the problems.
- It was good how it was.
- This activity will improve as we keep working in class.
- Let us use a calculator.
- We need more time to solve the first problem; it takes a bit longer to adjust out of your comfort zone.
- More candy.
- Keep on doing it.
- It was challenging, I like challenges.
- More time to solve the problems.

**D. What did the students who took on the teaching role learn from this experience?**

- By teaching others can improve skills and shows different ways of learning.
- Learn how to understand the problem, not just do it.
- How to work with others.
- Going around teaching the problem 5 times, got it stuck in my head so I won't forget how to do it.
- Helped me learn how to communicate learning to others.
- I realize it is not as easy as it looks to be a teacher and will give them my attention in class.
- I learned how to step out of my comfort zone and try to teach different sets of minds which was really challenging.
- The students who were the teachers were awesome.
- That you can teach the same way you learned.
- Stepping out of my comfort zone. ( great response)

### **Send a Problem Math** (Mathematics)

This activity is one that I also piloted with good results. This is quite interesting to me as a teacher, as I consider math to be my weakest area. This activity involved solving math problems and passing to other groups to solve. After all groups have solved the problem, one person from each group presents the results based on all groups' answers.

Following the activity the students wrote a journal entry:

When did you realize you liked doing math and were good at it? What grade were you in, what was the situation, who was the teacher? Did figuring out math problems make you feel smart? Include all the details you can remember.

OR

When did you realize that math was difficult for you and you decided you didn't like math. How did this make you feel? Include all the surrounding situation such as who was your teacher, what kind of math was it, and did you make up your mind not to like math? Have you kept that decision about not being good in math as you continued through school?

This proved to be a powerful exercise, almost a catharsis for some students. Many of them who seem to have a math phobia can directly relate it to a negative experience that they can relive like it was yesterday.

### **Sequence Chains** (Social Studies and Science)

In this activity students work in pairs to unscramble historical events or the order of occurrence related to science. They experience how to do basic research and then display their results on a poster board and share with classmates.

Social studies topics:

- Civil Rights
- Woman's Movement
- Viet Nam War
- Major events of the twentieth century
- Industrial Revolution inventors and inventions

Science topics:

- Blood flow to the heart
- Electromagnetic Spectrum
- Digestive System
- Respiratory system
- Layers of the earth's atmosphere
- Lunar phases of the moon in the Northern Hemisphere
- Five Kingdoms of living things

### **Test Taking Groups**

This activity involves students taking a GED practice test individually, not showing them their results and then placing them in a small group to take the test together. Although group test taking is not an option for taking the GED tests, it proved valuable for students to work together to see how others determine the answer therefore learning test taking strategies as well as develop critical thinking skills.

My plan is to continue developing collaborative learning activities using the two specific methods described. The GED program has four classes a day and I plan to ask the other instructors to visit their class and teach one of the collaborative learning activities. As I introduce the activities, I will continue to use formative classroom assessment techniques, and look at ways to make adjustments to improve learning. Angelo and Cross state "teaching students techniques for self-assessment that they can use in class helps them integrate classroom learning with learning outside of school." (Angelo & Cross 1993, p6.) This appears to be a valuable skill to assist GED students, many of them who are "at risk," to develop life skills. Parker Palmer stated "I am a teacher at heart, and there are moments in the classroom when I can hardly hold the joy." (Palmer, 2007) For me that moment came when a student asked "What are we doing for Tuesdays Event?"

## References

Angelo, T.A. & Cross, K.P.(1993) *Classroom Assessment Techniques, A Handbook for College Faculty* 2<sup>nd</sup> edition. San Francisco CA: Jossey Bass

Barkley,E. et al (2005) *Collaborative Learning Techniques, A Handbook for College Faculty*. San Francisco CA: Jossey Bass

Cranton,P. (1996) *Types of Group Learning* in S. Imel (Ed.) *New Directions for Adult and Continuing Education*, No 71. San Francisco CA: Jossey Bass

Knowles,M.et al (1998) *The Adult Learner 5<sup>th</sup> Edition*, Houston TX: Gult Publishing Company

Palmer, P (2007) *The Courage to Teach* . San Francisco CA: Jossey Bass

Pascarella, E. & Terenzini, P. (1991) *How college affects students* .San Francisco, CA: Jossey Bass

Smilkstein, R.( 2003) *We're Born to Learn*. Thousand Oaks, CA: Corwin Press, Inc.

Smith,K. (1996) *Cooperative Learning: Making "group work" work*. *New Directions for Teaching and Learning* No. 67,San Francisco CA: Jossey Bass

