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A Descriptive Account of Cooperative-Learning based Practice in Teacher Education

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Abstract

The purpose of this article is to provide a descriptive analysis of engaging teaching through cooperative learning at the graduate level, using an analysis of the teaching strategies and interactions between 33 pre-service teachers and their professor. Field notes were analysed along with interview data to generate a description of engaging teaching practices and its effects on students. The authors propose that this teacher's effectiveness was defined by the professor-student classroom interactions, a collaborative learning environment and use of cooperative learning. The consequence was increased student learning and motivation as well as a constructivist educational philosophy instilled in the minds of future educators.

Basis of Inquiry

What does engaging teaching through cooperative learning look like at the graduate level? What effect does cooperative learning have on graduate level learners? The complex answers to these questions are the basis for this descriptive study of an education professor, appraised as effective by his colleagues and students, as he worked with 33 pre-service teachers in a Multicultural Education course. Extensive bodies of research have indicated that cooperative learning is highly effective in promoting academic achievement, increasing higher level thinking, raising self-esteem and fostering productive interpersonal relationships. However it is often neglected at higher levels of education, therefore, this paper attempts to show how cooperative learning is not only a viable method of instruction but it improves motivation and learning of college students.

A Description of the Site and Participants

Participants in this study were pre-service teachers, enrolled in a 39 credit-hour program at Niagara University that would eventually lead to initial teaching certification in Adolescence Education. These 33 students were observed during the first course of their program, Multicultural Education. The cohort was composed of both American and Canadian citizens from diverse cultural and ethnic backgrounds. The students ranged in age from 22-55.

The professor, Dr. Paul Vermette is a highly regarded, distinguished teacher educator. He has been teaching at Niagara

University for 22 years in which time he has established a lively and highly distinguished reputation as an engaging and effective educational leader. He is a highly published and has authored dozens of texts including *Making cooperative learning work: Student teams in K-12 classrooms* (1998). In 2007, he won the R. Neal Appleby Outstanding Teacher Educator Award from the New York State Association of Teacher Educators. His students affectionately refer him to as a caring, passionate teacher, one who encourages and models excellence in the field of education.

Building Classroom Community in a Teacher Education Program

Evidence from researchers such as Emmer, Evertson and Worsham (1982) suggest that in order to create a safe and nurturing classroom environment, a smooth running, and autonomous classroom must be established from the first day of instruction. In Dr. Vermette's class, this first day consisted of a series of cooperative learning based "icebreaker" activities. Taking advantage of shared engagement and active learning, these icebreaker activities provided students with the opportunity to engage in deep cognitive thought while working with others towards a shared goal. With scaffolding, these activities emphasized the responsibility of all students to work together as a learning community, to share, respect and work with each other. Through these icebreaker activities, Dr. Vermette was able to lay the groundwork necessary to create a 'needs satisfying' environment, where students could grow both cognitively and affectively.

"The Gronk"

"Gronks are friendly, heavysset mammals. They have large round bellies and short stumpy little feet and arms..." These lines echoed throughout the classroom, as students were engaged in their first learning experience. Analogous to the scene described by Flynn, Mesibov, Vermette and Smith, (2004) on the first day of Dr. Vermette's class, students taught each other the characteristics of a fictitious creature called the Gronk. To begin, one student was randomly assigned to be the 'teacher,' the other the 'illustrator.' As was common in most of the activities prior to midterm, groups were randomly established based on student's location in the classroom. It was the job of the 'teacher' to teach the description of the Gronk, to his or her partner, before the 'illustrator' had to draw an accurate portrait of the being. After several minutes, Dr. Vermette called one student to the front of the room to share his creation.

"Anthony, can you please come up here," the other students clapped as Anthony sheepishly made his way to Dr. Vermette, "Would you like your partner to come up with you?" he asked. Without hesitation the young man nodded, his partner rose and joined him. Sensing a teachable moment and thus acting on anticipation that Anthony would want his partner to join him, Dr. Vermette seized the opportunity to open up a class discussion regarding possible reasons

why Anthony would want his partner to join him. After fielding numerous responses from the class, Dr. Vermette shared the application of this shared accomplishment idea to the middle school classroom, emphasizing the pedagogical applications highlighted by the interdependency of cooperative learning activities.

Approximately 15 minutes after Anthony was first invited to the front of the room Dr Vermette shifted the whole group discussion back to the young man standing beside him, "Anthony, will you please tell us what you know about the Gronk?"

Almost immediately Anthony began a several minute long explanation of the Gronk citing specific details such as "60 sharp teeth" and "a tail like an exclamation mark." Even without the picture or description in front of him, and having not thought about his description in more than 15 minutes, his recall of the characteristics was extraordinary. The students were prompted to applaud when he finished, acknowledging his accomplishment.

This vignette of "The Gronk" highlights some very significant pedagogical decisions by Dr. Vermette. Teaching the Gronk gave the students a minimally threatening, simplistic task that all students could accomplish, enabling them to experience success. By directly tapping into Glasser's motivator of power, this activity helped foster personal empowerment by allowing students to feel personal and group competence within an hour of their arrival.

This task was also very valuable due to the positive interdependency built in amongst learners. Just as the 'illustrator' could not have completed the task without his/her partner's description, the 'teacher' could not have fully understood the concept without utilizing the information in a meaningful way. Positive interdependency was also facilitated by the fact that the Gronk was almost immediately assessable, and as soon as the sketch was complete, both the class and the teacher knew whether the pair had fulfilled the expectations for the lesson. Since Anthony and his partner felt the pressing urgency to present their accomplishments, and the fact that it was made public, Dr. Vermette also foreshadowed the sort of active, communal tasks that students could expect for the remainder of the course. Rather than sitting passively in a lecture, participating in the Gronk activity foreshadowed the expectation that students would demonstrate their understanding by being active learners in the classroom.

The next point worth noting in regards to this "icebreaker" activity is the idea Dr. Vermette stressed in his debriefing of the activity, that one of the most effective ways to foster critical consideration of a topic is to create the opportunity for students to construct their own meaning. While it may seem that retelling attributes of a fictitious creature is a lower level thinking activity, the fact that the students had to make sense of the passage and then apply their knowledge in order to teach someone else, required that

students become actively engaged in the learning process. In this case, teaching the Gronk allowed both members of the group to simultaneously construct meaning from the description of this fictitious being. As neither member had any prior knowledge of this creature before they completed this activity, Dr. Vermette used this activity to highlight this very important educational theory to his students.

Using the Three Structures of Team Building in a Teacher Education Program

Now that we have analyzed how community was first established in the course, this program will be examined in light of Dr. Vermette's guiding principles for successful cooperative learning in the classroom. As outlined in the book *Making Cooperative learning work – Student teams in K – 12 classrooms* (1998), there are three structures which provide the basis for establishing and implementing successful cooperative learning systems. They will be defined as grouping, grading and governing.

“Group Building for Success”

The midterm of this course, marked the first time students worked in base groups. These base groups were teams of four students purposefully created by Dr. Vermette. It is of importance to note that these base groups were not implemented until midterm of the course, only after Dr. Vermette had observed the students' work in informal group settings, and only after he could make reasonable predictions regarding how students would interact with one another. One of the reasons for the lingering cohesiveness and success of these groups was the intentionality that went into their formation. Research indicates that successful groups of students include as much diversity as possible, while keeping in mind the needs and intellectual diversity of individual students (Clarke, Wildeman & Eadie, 1990). Therefore, the delay before assigning permanent base groups was necessary because it gave Dr. Vermette the opportunity to identify the diversities among his students so that he could accurately assign them to groups.

Another strategy Dr. Vermette used to promote positive social interaction among students was facilitating the understanding that mutual respect and cooperation was a requirement among group members, not an option. To accomplish this task, he had each member of the base group shake hands with one another and recite, “I don't have to like you, I just have to work with you and show you respect.” The contingency in this statement set up the expectation that every student is required and expected to work with every other student, regardless of prior relationships that may exist. By handling the social-emotional component of grouping in this way, Dr. Vermette established the expectations of group cooperation and collaboration necessary to create a safe and respectful learning environment. Students worked in their base groups every day for the remainder of the course; the most significant of which are described below.

“Teaching the Holocaust”

“Research suggests the first day of school is disproportionately important. The second most important class of our program is today. I’m very excited about that!” exclaimed Dr. Vermette as class began on day nine of the course. This day marked the first time the graduate students would ever teach a lesson. The previous night each student prepared a lesson about the Holocaust. Students were encouraged to consider the learner’s thinking and engagement first, and then create the scaffolds and interventions necessary to ensure success. For the Holocaust lesson the only requirements were that ‘teachers’ had to foster a discussion and had to have their ‘students’ produce physical evidence of their understanding. Though novices, each student had their own unique take on presenting this event to their peers, some students had costumes, others had video footage and primary source documents. These base groups were the ideal situations for teaching for the first time because even if a student was unfamiliar with the content, he/she was familiar with the people they were teaching, thereby easing some of the anxiety that accompanied this task.

The following week, Dr. Vermette asked the students why he chose to teach them the Holocaust in this way. Their responses ranged from, the need to learn history, to practicing teaching others and fostering discussions. As evident by the variation of student responses, this activity undoubtedly encouraged critical thinking and metacognitive reflection among cohort members. Such levels of thinking would not have been possible without this cooperative learning structure, nor would it have been as effective if completed in unintentionally assigned or random student groups. By gaining teaching experience in this minimally threatening, controlled environment, students were given a safe opportunity to test out the learning and teaching strategies they had been studying.

“Authentic Assessment, Grading and Teams”

Throughout the course, Dr. Vermette administered several types of assessments including observation, formal/informal assessment and performance assessments. Unlike other, more traditional classroom settings, the purposes of these assessments were not to make pass or fail decisions or compare student performances to each other. Instead, Dr. Vermette graded all written work on a four-point scale of “superb,” “good,” “fair” or “poor.” Very rarely did students ever earn a “fair” or “poor” marking, because in that case, it was simply assumed the student was ‘not finished yet.’ Dr. Vermette provided those students with specific written feedback with which he and the students created a joint plan for improvement and resubmission. In Dr. Vermette’s class, assessment meant nothing unless it enhanced student learning.

One of the reasons that Dr. Vermette’s cooperative learning structures were so successful was the fact that his grading policy fostered a safe and nurturing learning environment conducive to their

success. Though competition over grades has characterized traditional educational practice for centuries, it has never been an advantageous atmosphere to foster successful cooperative learning. Knowing this from the very first day of class, Dr. Vermette intentionally assured his students that he does not grade on a traditional bell curve. "There are A's for all of you," he asserted, "and I expect you all to get A's." In accordance with Dr. Vermette's promise to his students (which will be explored later in great detail), he vowed that if students "worked hard, did the activities well, showed thoughtfulness, curiosity, creativity, collaborative competence, and a positive attitude, they would accomplish much, become competent and earn an A." With grade anxiety set aside, students were liberated to work together and focus on working as a team, in a non-competitive environment. Indeed this policy allowed his students to flourish. In this specific cohort, all 33 students demonstrated competency at a high enough level to earn A's.

As advocated in his book, Dr. Vermette measured student success daily using a five-point grading scale. He based each student's marks on his observations of their contribution to their team and participation in whole group discussions. With 33 students in the class, this was accomplished through a teacher created rubric that not only assessed student growth but provided suggestions for personal improvement. Students were invited to take his feedback and create a plan for personal and social improvement.

A major component of students' daily contribution grade was the completion of ten outslips. These outslips were often comprised of a series of reflective questions that enabled instructional improvement and program assessment. Although these outslips took different forms, they were used by Dr. Vermette to better adapt his teaching methods to meet student needs, gain feedback on student concerns and thereby judge whether his pedagogy was achieving the desired effect. He would often use the issues raised by these outslips as a springboard for in-class discussion, often distributing examples of completed student outslips to the class so everyone could participate.

It is important to note that students always had a choice of the questions they chose to reflect on for their outslips - thereby fulfilling the students' need for freedom as outlined by Glasser (1998). This choice allowed students to think deeply about what they considered important, thereby allowing students to take ownership in a meaningful task. The questions were intentionally designed to foster critical thinking, based on the research of theorists such as Wiggins and McTighe (1998) and Gardner (1993). By midterm of the semester, students also had the option to "free write," where they could structure their outslips in any manner which fit their needs.

"Governing the Groups"

Regardless of the grade level or content of study, in order for cooperative learning structures to be effective, it is essential that

teachers implement a feasible governing policy. Vermette (1998) has outlined a series of strategies for setting team expectations, to be utilized by teachers trying to implement student teams. In this class, Dr. Vermette chose for the students to invent their own expectations, but did so based upon the question of "How should we as future teachers expect our students to act in groups?" After first developing a list of three items individually, Dr. Vermette created a comprehensive class list on the chalkboard. "Now that we have this list," Dr. Vermette said as he foreshadowed the cohort's future learning experiences, "These are the expectations I have for you in your own cooperative learning groups." With these expectations now fully explored, students were ready to apply the rules they generated to their own base groups.

It is of importance to note that the students in Dr. Vermette's class were creating "expectations" for their class, not "rules." Although this may appear to be mere syntax, the importance of this distinction is imbedded in Glasser's Choice Theory (1998), of which Dr. Vermette's pedagogy is deeply rooted. To create classroom "rules" places the power the hands of the teacher, thereby holding him responsible to micromanaging the students. To create "expectations" however is to realize that the teacher is not in control of student thoughts and actions, that it is in fact only the students who can be responsible for their own choices.

In a Lockian sense, creating such expectations is like creating a social contract, whereby the students understand what they are doing and know the implications of their choices. Students can easily disrespect rules that they do not accept and if no clear rationale is given for them it inherently creates a power struggle that between the teacher and students. The setting of expectations however creates an alliance between the teacher and the student, where both must function as a team in order to work towards these expectations. Falling short of an expectation does not require retribution, as in the traditional classroom, but provides room for reflection, growth and improvement. The motivation behind consequences in this sort of learning community is self-regulation and continuous improvement, whereby such penalties are nothing more than learning experiences, geared towards growth in the best interest of the child.

Another instructional nuance of this activity that is worth noting is its timing within the confines of the course. These expectations were created on the second day of classes, only after students had been exposed to the concept of cooperative learning and had participated in several "icebreaker" activities requiring peer interaction. The reason for this postponement is two-fold. Firstly, it ensured that all students were capable of successfully following the anticipated expectations. As it was still very early on in the course, Dr. Vermette needed to provide his students with initial success experiences, and to show that no student was going to be asked to do something that was he/she would view as personally unreasonable. Secondly, by delaying, Dr. Vermette also assured that his students understood the implications

of their expectations in their future base groups. In this way, while the students took an active role in creating these expectations, they also evolved as the result of actual interactions. They provided students with *raison d'être*, and made the expectations they created more meaningful and authentic.

Bain (2004) suggests that at the heart of all college courses should be a set of fundamental "promises," negotiated between the teacher and his students. These promises should be neither rules nor obligations, but an interactive syllabus, designed to allow students to negotiate their own meaning for the course. Unlike the binding contract of demands, which typify most syllabi, a syllabus of promises invites the students to learn and explore through the opportunities presented to them. Since students are able to make what they want of these promises, Bain's suggested syllabi makes the course a series of meaningful experiences, rather than weeks of instruction that is mindlessly adhered to.

It was on the second day, that Dr. Vermette presented the class with his list of promises, and encouraged the students, working in teams, to extract from it the four promises that they considered to be most important. Students were then to write two promises back, although he emphasized that the connotation associated with the promises of the student were different than that of the teacher. He explained that while the teacher's promises were unconditional, the students' promises were only goals. In this way, these promises were more like a covenant between the teacher and his students than a contract, with the bottom line to develop mutual trust and respect. Dr. Vermette's promises, as included below were created with the help of colleague Mr. Ted Werner.

PROMISES

1. The instructor will treat you with caring, patience and respect at all times and will make you part of his or her "quality world."
2. The instructor will be prepared for every minute of every class and will never give you busy work" or irrelevant/unimportant assignments
3. The instructor will believe what you say or tell him/others
4. The instructor will demand that everyone in the classroom community treats everyone else with respect
5. The instructor will try to read everything that you write and will tell you if that is not possible in a particular situation
6. The instructor will keep you informed of your progress in the learning experience
7. The instructor will continually think about you as a valuable human being and a future teacher responsible for the welfare of diverse others

Through the creation of expectations and establishment of promises, Dr. Vermette inexplicably set the tone for his classroom community. By governing his class in this way, he allowed students to

take ownership for their own learning experiences, consequentially established a caring community of mutual trust and respect. The effects of these activities, would linger in the minds of his students for the remainder of the course.

Key Classroom Learning Experiences

Now that Dr. Vermette's pedagogy has been examined in light of the cooperative learning components of grouping, grading and governing, the focus of this paper will shift more specifically to key learning experiences he used to teach diversity and multiculturalism.. It is important to note that Dr. Vermette 's approach to teaching multiculturalism was unique in that he had his students think deeply about concepts such as "caring classroom communities," "differentiated instruction" and "culturally relevant teaching," instead of more traditional issues such as "oppression," "white privilege" and "cultural deprivation." These divergent methodologies provide an interesting set of comparisons, worthy of exploration due to their implications on multicultural education in teacher education.

"The Problem of Inequity in a Meritocracy"

The backdrop of the entire course was multicultural education, therefore, one of the quintessential ties linking all the learning experiences was an examination of the realities, practices and theories that help educators meet the needs of diverse students. Given the diverse atmospheres these students will experience, it is essential that future teachers have the ability to address the needs of a diverse student population and the subsequent pluralistic society for which those children will live. To address these issues, students thought deeply about two texts, *The Dreamkeepers: Successful Teachers of African American children* by Gloria Ladson- Billings and *The Road that Led to Somewhere* by Bryan E. Walls. Not only did these texts address effective teaching practices but also highlighted the realities of race, ethnicity, and social class in American education.

The Dreamkeepers

The first of these novels was the text by Gloria Ladson-Billings, which introduced the students to the notion of "culturally relevant teaching." According to Ladson-Billings, reaching all learners requires that educators understand the core beliefs and experiences of his/her students various cultures and work to make schooling relevant by teaching in light of the students' prior experiences and perspectives. In the text, Ladson-Billings examines this idea through the effective teaching practices of eight educators of African American students and their approaches to teaching.

The exceptionality of *The Dreamkeepers* learning experience in Dr. Vermette's class was that the text was never formally discussed, nor was the concept of culturally relevant teaching ever explored until after students had completed an extensive six item, project that asked

them to utilize these concepts in a meaningful, integrated way. The students were randomly assigned one of the eight teachers highlighted in the book, and then asked to provide evidence of their understanding by creating artifacts directly tied to Wiggins and McTighe's Six Facets of Understanding (1998).

Class time was utilized to discuss the book in a format reminiscent of a modified jigsaw. First, groups homogeneous by assigned teacher met to discuss what they liked and what questions they still had about the teacher they studied. Then students moved to their formal base groups, where they created a list of 10 things they remember about the book. Since the base groups contained student "experts" on every teacher, each team had collectively read the whole book and was able to thoughtfully contrast the approaches of the various educators. Lastly, Dr. Vermette fostered a whole group discussion, which simultaneously reviewed the contexts of the book, the notion of culturally relevant teaching and the project the students had completed.

The Road that Led to Somewhere

In addition to *The Dreamkeepers*, students also examined the topic of race relations in both historical and contemporary North America through the examination of the book *The Road that Led to Somewhere* by Bryan E. Walls. As an African-Canadian author, Walls' book is a novelization of his family's journey from slavery. The novel is a gripping account of an American slave, which highlights the question: "What are the consequences of American slavery, in terms of discrimination, character and morality?"

As with *The Dreamkeepers*, this test was completed outside of class, before the formal discussion. The test included the completion of 3 of 8 artifacts which ranged from an original set of song lyrics to an interview with a community member regarding "slavery and contemporary US race reality." These questions incorporated Gardner's Multiple Intelligence theory (1993) as well as Wiggins and McTighe's Six Facets of Understanding (1998), thereby giving students an in-depth meaningful synthesis of the text. As with the Ladson-Billings assignment, the Walls test only required students read and reflect on 8 of the 44 chapters in the novel, and a significant amount of choice into the assignment.

Because the students did not read the entire novel, work in base groups was again utilized as the primary means of debriefing the Walls text. This time Dr. Vermette chose to address text by addressing the question, "How could I use this book in my own classroom?" Students had 12 minutes to create a list of eight interdisciplinary activities with their base groups and then were encouraged to share them in a student-led whole group discussion.

Perhaps the most noteworthy component to this exercise was that it concurrently placed the pre-service teachers in the role of

educators while also formally introducing them to Gardner's Theory of Multiple Intelligences (1993). Through students had never heard of Gardner before, by allowing them "play" with the concept in a meaningful context, students participated in an experience Dr. Vermette could later refer to. After comparing how well the student-generated list paralleled Gardner's theory, Dr. Vermette gave the students time to return to their base groups to classify their list by intelligence. Students left class that day with not only a deepened understanding of American history but also Gardner's educational philosophy and its application into practice. By giving students a meaningful experience first, students are better able to process, comprehend, and then apply this information to diverse situations.

"Journey Sharing"

Integrating action, experience and future aspirations into one comprehensive experience was the main rationale behind the journey sharing event which occurred the last day of classes. On this day, each of the 33 students as well as local school faculty and invited guests joined in recognizing the accomplishments of the students. Each student was responsible for preparing a visual representation which highlighted their "journey," specifically where they had been and where they hope to improve as an educator. Since student skills, knowledge and competencies were displayed in a student chosen, personally meaningful representation, these journey sharing projects took many forms most notably, posters, painting, and videos.

In accordance with the research of Donovan, Bransford, & Pellegrino (1999) this journey sharing event can be described as a authentic, reflective form of assessment. Since students were allowed to explore, discuss, and meaningfully construct the concepts they had been studying, the work was relevant to the learners, and therefore increasing intrinsic motivation. Unlike task-based learning, this journey sharing assignment was situated in a real world context and therefore the presence of an authentic shifted the focus from the grade on the assignment to the quality of the product. Also since each student brought a guest to the event, there was a large audience eager to share in the excitement of this event.

Conclusion

What does engaging teaching through cooperative learning look like at the graduate level? What effects does cooperative learning have on graduate level learners? As the authors look back on this class, the attributes of effective cooperative learning manifest themselves in the highly skilled, engaging practices brought to life by the teachings of Dr. Paul J. Vermette. His effective use of cooperative learning made possible a safe, nurturing learning community. His meaningful learning experiences helped foster student creativity and intellectual growth. Instead of simply teaching his students of educational innovations, Dr. Vermette employed them - turning educational theories into his everyday classroom practices.

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